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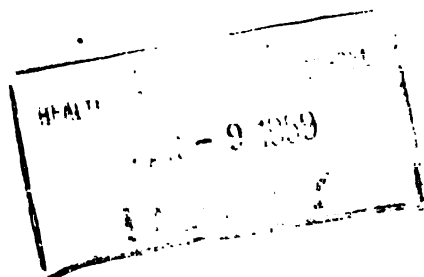
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AND OF THE

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No. 1.

IMPROVEMENT OF THE LANGUAGE OF THE PUPILS.

BY EDWIN S. MONROE.

 LANGUAGE, good or bad, is the result of environment and habit. Descendants of educated parents, who speak good English of course, use good language. The opposite is true with children of illiterate or carelessly speaking parents. In the case of a great majority of the children that are placed in the public schools, ungrammatical expressions began with the first lisps of the infant. They were heard from parents, playmates and associates, and even from teachers themselves. Under such circumstances the use of impure language follows natural law. It is easier for the child to say, *I seen, Me and him done it, I knowed, You was*, etc., etc., than the correct form. Even after he has learned better incorrect expressions are used from force of habit. Educated sons and daughters of parents who were careless in speech have often been annoyed, at an unguarded moment, by the slipping out of an ungrammatical expression. I once heard a graduate of Yale make three grammatical mistakes and two mispronunciations in the course of a Sunday evening's sermon. Certainly this came from habit,—the man surely knew better. Children come to us with bad expressions and mispronunciations thoroughly a part of their vocabularies. Shall we let them go on and suffer the embarrassments that I, and, perhaps, some of my readers, have suffered? No indeed. We must help them out of this difficulty. Experience in my own teaching and observation of others teach me that the study of grammar will not do it. Is there a way then,

by which we can help our pupils to overcome the habit of using such bad language?

I submit to the consideration of the readers of the Journal a plan that has been found to be quite successful in producing the desired results. I have never seen it in print, but got a hint of it a long time ago before I began teaching, at a teachers' institute in a country school house. What the children need is the practical use of the language. It is not necessary for them to know the names of the parts of speech. It is said that Plato and Aristotle could not parse or analyze the classic Greek they wrote. Richard Grant White called the contrivance known as English grammar Absurd, and the study of it a useless study. Moreover he has said many good things on this subject. I do not wish to go so far as Richard Grant White, but I veritably believe that to be able to use our verbs and pronouns correctly, to be a far greater accomplishment than to be able to give the constructions of the most obscure infinitives or participles, or to dissect the most intricate sentences of Milton or Pollock and hang their remains on cruel diagrams.

The use of bad language, as before stated, is a habit formed in childhood and almost thoroughly grounded in our natures. It is clearly seen that in order to break up the habit of using wrong expressions we must form the habit of using the right ones. The child uses an incorrect form without thinking; we must, therefore, completely eradicate it from his mind and so thoroughly instil the correct form that he will use it without mental effort. This will require drill, but not so much as one would, at first, suppose. Teach first that the expression you have under consideration is wrong; then give the class the right one, and by means of the following method, if carried to the proper extent, each member will become so thoroughly impressed that ever afterward the right expression will be used. Copy on the board the lists given and drill, *drill*. Have the child repeat each sentence, after the manner of dictation or conjugation, until the correct form is indelibly stamped on his memory. The teacher need not necessarily be confined to the sentences here given. Use sentences to suit the occasion.

(1) To overcome fault of using the perfect participle of some irregular verbs for the past tense; as, I *seen* him do it, He *come* yesterday, John *done* the work, etc.

I did that.

You did that.

I saw the show.

You saw the show.

He did that.	He saw the show.
She did that.	She saw the show.
It did that.	It saw the show.
We did that.	We saw the show.
They did that.	They saw the show.
John did that.	John saw the show.

(2) To overcome fault of using the past tense for perfect participle; as, I have *saw* him, He has *drew* the picture, etc.

I have seen.	I have drawn the picture.
You have seen.	You have drawn the picture.
He has seen.	He has drawn the picture.
She has seen.	She has drawn the picture.
It has seen.	It has drawn the picture.
We have seen.	We have drawn the picture.
They have seen.	They have drawn the picture.
John has seen.	John has drawn the picture.

Impress *has* and *have*.

(3) To overcome fault of giving regular forms to irregular verbs; as, *grewed* for grew or grown, *knowed* for knew or known, *throwed* for threw or thrown, etc.

I knew my lesson.	I threw the ball.
You knew your lesson.	You threw the ball.
He knew his lesson.	He threw the ball.
She knew her lesson.	She threw the ball.
We knew our lesson.	We threw the ball.
They knew their lesson.	They threw the ball.
John knew his lesson.	John threw the ball.
Mary knew her lesson.	Mary threw the ball.
etc.	etc.

I have known, etc.	I have thrown the ball.
You have known, etc.	You have thrown the ball.
He has known, etc.	He has thrown the ball.
She has known, etc.	She has thrown the ball.
We have known, etc.	We have thrown the ball.
They have known, etc.	They have thrown the ball.
John has known, etc.	John has thrown the ball.
Mary has known, etc.	Mary has thrown the ball.

(4) To overcome the use of It don't, He don't, Henry don't, etc.

I don't work.
You don't work.

He doesn't work.	The boy doesn't work.
She doesn't work.	The girl doesn't work.
It doesn't work.	The ox doesn't work.
We don't work.	The horse doesn't work.
They don't work.	The machine doesn't work.
John doesn't work.	etc.
Mary doesn't work.	

(5) To overcome fault of using wrong forms of *to be*; as, You *was* coming, etc.

PRESENT.

I am sick.	I am going.
You are sick.	You are going.
He is sick.	He is going.
She is sick.	She is going.
It is sick.	It is going.
We are sick.	We are going.
They are sick.	They are going.
John is sick.	John is going.

PAST.

I was sick.	I was going.
You were sick.	You were going.
He was sick.	He was going.
She was sick.	She was going.
It was sick.	It was going.
We were sick.	We were going.
They were sick.	They were going.
John is sick.	John was going.

(6) To overcome fault of using the objective form of pronouns for the nominative; as, Frank and *me* were late, It was *him*, etc.

(a) Frank and I were late.	Frank and I study.
Frank and you were late.	Frank and you study.
Frank and he were late.	Frank and he study.
Frank and she were late.	Frank and she study.

- (b) It was I who did it.
 It was he who did it.
 It was she who did it.
 etc.

(7) To overcome fault of using nominative for objective; as, Between you and I, It is for George and I, *Who* did you want? etc.

- | | |
|---------------------------|-----------------------------|
| (a) Between you and me. | (b) It is for you and me. |
| Between you and him. | It is for you and him. |
| Between you and her. | It is for you and her, etc. |
| Between you and us. | (c) Whom did you call? |
| Between you and them. | Whom did he call? |
| Between him and me, etc. | Whom did she call? |
| Between them and us, etc. | Whom did they call? etc. |

- (d) Let him and me go.
 Let her and me go.
 Let John and me go.
 Let Mary and me go.
 Let them and me go, etc.

(8) To overcome fault in position of pronouns; as, I and he are good friends, etc.

- | | |
|------------------------|----------------------------|
| You and I are going. | You, he and I are going. |
| He and I are going. | You, she and I are going. |
| She and I are going. | You, John and I are going. |
| They and we are going. | etc. |

But this is sufficient to show the plan. It can be carried on indefinitely, embracing most of the faults in speaking—faults in plurals, agreements, *them* for *those*, *shall* for *will*, double negatives, adjectives for adverbs, etc., etc. In class lead the pupils to express themselves freely. If there be heard an “is” for an “are”, a “done” for a “did”, a “them” for a “those”, let it be corrected at once. Then drill the pupil on the correct expression. He will recognize the laws of the language much more readily there in the living sentence than when isolated and covered up by the nomenclature and abstractions of a grammar. In addition, pupils should frequently express their thoughts in writing, and the eyes of the teacher should be ever watchful to detect any mistakes. Have a corrected sentence re-written several times, that the pupil may be thoroughly impressed with its form.

Many teachers commit grave errors in trying to improve the language of their pupils. One is the practice of writing ungrammatical expressions on the black-board and letting them remain there a length of time that the pupils may become familiar with them and thereby avoid the use of them. As well write all the oaths and profane expressions on the board to prevent their use! Remember that bad language like all other vices,—

"To be hated needs but to be *seen*,
But seen too *oft*, familiar with its face,
We first endure, then pity, then *embrace*."

Nor is the practice of allowing pupils to criticize one another a good one. Such begets a spirit of curiosity and enmity that is not conducive to good government. Others might be mentioned, but the limits of the article will not permit.

FARMERSVILLE, IND.

HINTS ON TEACHING HISTORY.

BY HENRY G. WILLIAMS.

THE writer's experience in teaching history has enabled him to deduce the following rules to be observed in teaching this much-neglected subject:—

1. Know what you are going to do before you attempt to instruct your class.
2. Mere telling is not teaching.
3. Let the class do the reciting. Your work is to draw out, to direct, and to lead.
4. That the class may do the reciting it is necessary that they be interested, and that you be able to hold their attention.
5. When reading over the lesson, pay close attention to all the difficult or obscure statements of the author.
6. After the lesson has been read in the class, (if there be sufficient time to have it read), discuss the events narrated in the lesson. Turn the recitation into a debate, whenever the opinion of the class is divided, or whenever the subject is capable of such division.
7. Always talk in a conversational tone. Encourage your pupils to talk with you on the subject at hand. Make the recitation a pleasant conversation.
8. Don't appear morose and distant. Let your pupils know, by seeing, that you are interested and want them to be.
9. Seldom require your history pupil to give you anything in the language of the book.
10. Don't make parrots of your pupils, but make them *thinkers*. To make *thinkers* of them you must require them to express thoughts in their own language. When they have done this they have *created* a thought.
11. An event is the ultimate effect of some cause, possibly very

remote. You should trace the subject back and find its cause, or, as in some cases, its chain of causes. You should help your pupil go from the effect itself back to the immediate cause; from the immediate to the material cause; and from the material to the remote or original cause. For instance, the invention of the cotton-gin may be considered one of the principal causes of the growth of slavery.

12. Don't forget that a mere statement of historical facts, "cold as an iceberg and barren as a desert", will not create an interest.

13. The interest to be manifested in history is not to proceed from what is in the text-book. Hence, use as many books and sources of information as you can. Do not allow yourself nor your pupils to become mechanically built.

14. Study history through biography. No other source will prove more interesting and instructive.

15. See that by teaching history you teach true patriotism. A love of country should be instilled into the minds and hearts of every pupil of history.

16. Remember that a correct knowledge of civil government is one of the prime acquisitions to be made. The teacher who is not prepared to teach civil government is lacking in one very important essential.

17. Call attention to great events by celebrating their anniversaries. Days may be set apart on which to celebrate the birth-days of such men as have made our history what it is.

18. Introduce much extraneous matter. This on the part of the pupils can best be done by writing "compositions." But do not call them compositions or essays, for these terms are repulsive. Simply encourage them to write down the results of their investigations on any subject appropriate. It will soon become a labor of love. Be sure you begin in time. A child of ten will more readily comply with this request than a "young man" of sixteen.

19. Frequently resort to the story telling method of teaching history. Endeavor to have something *new* prepared for each day's recitation, at least make such occasions frequent.

20. Have a historical scrap-book, in which to paste every historical reference from reliable newspaper sources.

21. After telling them something they never knew (especially a primary class), always require them in return to tell you.

22. Use judicious questioning. Seldom ask a question that may be

answered by a mere "yes" or "no". Little thought is moulded by such an answer.

23. Your question, when properly stated, should seldom contain a part of the answer. The Socratic method may frequently be applied in the teaching of this branch.

24. Use frequent reviews. Have no set days for reviews. Make every lesson a practical review, or let them occur whenever they naturally suggest themselves. *Review! REVIEW!! REVIEW!!!*

25. Lastly, remember that—

"If vain you toil,

You should blame the culture, not the soil;"

and that "more credit and honor may be due to a teacher who has brought forth from his school an humble, honorable citizen, than to him who has produced a Wellington." The child of to-day will be the citizen of to-morrow. This nation needs more men and women who know whence came their birthright. The two million illiterate voters in this Republic are not the proper class to hold or give the reins of power.

WILLETTSVILLE, OHIO.

THE COMING SCHOOL.

ELLEN E. KENYON, BROOKLYN, N. Y.

[The following is an abstract of a paper read before the Massachusetts Teachers' Association, Boston, Nov. 30, '89. Sent to the Journal by J. M. Olcott, who heard the paper and pronounced it "most excellent."—Ed.]

THE future can be predicted only from the progressions of the past and the visible tendencies of the present. The history of educational thought furnishes us all the foundation principles for the coming school, and all possible educational ideals to choose or build our own from. It also yields us examples, in abundance, of bad and good methods, of short lived and enduring institutions. It has given us, in Fröbel's work, the beginnings of a philosophical training by the state; in Pestalozzi's, some splendid suggestion for the next stage of public education; in the work of specialists the means of systematically continuing the subjects commenced in the course of previous mind-training; in the schools of Athens, types of the final processes in general schooling; in the professional and trade schools of later times, a means of special training for pursuits. This completes an ideal course of study. It is best arranged as follows:

1. The kindergarten, providing a comprehensive rudimentary training for all the elements of character.

2. The primary school, containing this training; establishing clear concepts of all familiar objects; exercising the more complex mental powers; connecting related things in the memory; fixing habits of study, and teaching the three "R's."

3. The secondary school, gathering correlated facts into their several departments of science; cultivating the special gifts of individuals; teaching, with each science and art, the literature that belongs to it; necessarily conducted by specialists.

4. The tertiary school, for the deeper study of the classics, arts, and sciences, and the higher cultivation of the logical, critical, and rhetorical powers.

5. The special school, in which some profession or other industrial occupation shall be thoroughly learned.

If it is true that the whole boy goes to school, moral and manual training must accompany mental training in all the schools. If it is true that the mind is a unit, the same conclusion follows. If it is true that we act from motives, moral training is a school necessity. If it is true that all knowledge is related, all the powers through which knowledge is acquired must work together.

The educational thought of the present is developing a true notion of the importance in mental growth of the individual concrete concept. It occupies a central place in thought, being the product of sense action and the basis of mind-action. It can safely become our next fetich, since of such are the stepping-stones to even true progress. In its worship the teacher need not lose sight of anything good, for all lines of growth lead to it or from it. Even physical exercise, manual training, and ethical culture may be included in the processes of concept building, which is the chief legitimate work of the primary school.

The most formidable obstruction in the way of the coming school is our habit of placing young and inexperienced teachers in charge of primary classes, where breadth of thought, defiteness of plan, and skill in execution are infinitely more needed than in the subsequent work. To make one's self thorough in a single branch of study, with sufficient general intelligence to see and show the dependence of that branch upon others, is the task of the specialist in the secondary school proposed. It is indeed a difficult task, requiring the patience and devotion of genius.

But almost every human being has a natural genius for some one thing; and, given the requisite training, there would be no lack of specialist teachers. Far higher in the scale of genius is he who can, while planning a day's work for a little child, have and hold in view the whole of that child's character and destiny; and, if to plan is easier than to fulfil, what shall be said of the skill that shall faithfully carry out in daily, hourly detail, aims so broad and deep and high?

With inexperienced young girls in our lowest classes it is quite impossible to conduct education in accordance with any known law. Even in the higher classes, under the tuition of competent teachers, true principles can not be applied, because there is no foundation, or a very poor one—unless the pupil has received some training at home. This is the secret of the “cram” so complained of. To continue the practice of placing the weakest teachers where the strongest are needed is the greatest pedagogical error of our day. Massachusetts teachers should lead in the reform here indicated, as they have lead in others.

TOWNSHIP LIBRARIES.

BY JACOB P. DUNN, STATE LIBRARIAN,
(In Indianapolis Sentinel.)

THERE is one branch of Indiana's educational system that has been much neglected. Her school fund is large. Her school buildings are numerous and usually commodious. Her school system is modern and presumably effective, though there may be a difference of opinion as to that. Her libraries are disgraceful, and this is a defect to which immediate attention should be given. There are many persons in Indiana who would like to improve their minds, and many more who could be induced to do so if they had the opportunity, who can not attend school. Some of them are too old for that, and some are too busy; some are kept from school by the necessity of working for a living. To these persons access to good books would be a blessing, and their education would in the natural sequence of affairs be a benefit to the state.

If education be worthy of encouragement by the state, as is now almost universally conceded, it should be made as universal and far reaching as possible. Our school system, although a very excellent one, does not reach a large portion of our people, for the reasons mentioned, and the school work, outside of towns that support libraries, is retarded by lack

of books of reference. The obvious remedy needed is the establishment of a general library system, which was put in force thirty odd years ago. It cost the state originally \$300,000, but it was found to be of general benefit and well worth the investment. During the war it fell into decay. Taxes were heavy, and people objected to any burdens except those of actual necessity. The principal defects of the system were two. There was no provision for the maintenance of the library, except a tax to be levied at the discretion of the township trustees, and they would not levy it for fear it would make them unpopular. There was no provision for the care of the libraries, except that they were under the control of the township trustees.

To remedy these defects a provision should be made for a small tax which would raise from \$100 to \$300 per annum for each township; and \$50 to \$75 of the money so raised should be appropriated to the payment of a librarian. This would be found ample compensation to some competent person in each township to care for the libraries, as they would ordinarily be open only one day in the week. On this plan a fair library could be placed within reach of every person in the state, and enough books added annually to keep it reasonably abreast of the times. A large portion of the books of the old township libraries have been lost or destroyed, but it is believed that at least one half of them can be gathered up now. There would be accessions to these libraries in all parts of the state by donations, particularly from government sources. The numerous volumes published by the state and by the United States could be obtained and preserved in them. These are of much more value than is ordinarily supposed. For example, if the report of the tariff commission, the report on foreign tariffs, the state department's report on labor in foreign countries, and similar documents, had been accessible in every township in the state during the late campaign, they would have been eagerly sought by many people who desired authoritative information on these subjects.

THERE are schools going right on in the old jog-trot of a past age. They are the old "common-noun-third-person-singular" schools. These grammatical grinds continue to say that "the subject of a finite verb must be in the nominative case," all oblivious to the fact that the English noun has no case at all. When will this dreariness and stupidity end?

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

*A LESSON WITH CONNECTED SENTENCES IN
READING.*

IN primary reading, the first phase is that which results in the mastery of a group of some forty or fifty words as letters, standing for meaning.

This work is oral, and occupies perhaps, two or three months in time. In it, the sole purpose is to directly associate a printed word as a whole, with its meaning.

In this work, the attention of the children is not called in any way to the letters or sounds. If the children learn anything in regard to these, such knowledge is incidental.

The one aim of the work, is to impress the children with the idea that words stand for meaning; and to give them a basis for determining the meaning of new words in connected sentences, through the meaning of these familiar words that are also found in such sentences.

Words signify, however, more than meaning. They signify sounds. Therefore, printed words must be taught as standing for sound.

But this work is not to be taken in connection with the preceding phase, because it unduly and unnecessarily complicates the work in that phase, and also prevents the child from acquiring the idea that the main function of words is to express meaning.

The work of the first phase having been strongly and clearly put, the child is then prepared to enter upon a second phase.

The aim in this second phase, is:—

First. To make the child master of the separate sounds in the oral words corresponding to the printed words taught in the first phase.

Second. To have him associate that in the printed word itself, which signifies each sound. This does not involve in any way, the use of diacritical marks.

In each word itself, without any help from diacritical marks, there is a something that symbolizes each sound of the corresponding oral word. Thus in the printed word "can," there is a something which, without diacritical marks, symbolizes each sound in the oral word "can."

The second phase of reading work, is to make the child skilled in perceiving the relation of such symbols in the words themselves, to the sounds. For example, in the given word, the child is to be led first, to master clearly the first sound in the oral word "can"; and second, to

associate this sound with its symbol in the printed word; viz., the letter *c*, with the letter *a* after it. That is, he is to be taught that the letter *c*, followed by the letter *a*, as in the given case, symbolizes the sound.

The point is to be clearly made, that the two letters do not symbolize the sound; but that the first letter arranged as in the given case, with *a* after it, stands for the sound.

In like manner, the child is to learn the second sound in the oral word "can"; and that the letter *a*, with *n* after it, as in the given case, is the symbol for the sound.

Pursuing the work, he is to learn the third sound of the oral word, and that the letter *t* is the symbol.

Work of this nature is to occupy from two to three months; and the central aim is to make the child skilled in the ability to recognize and produce sounds; and in deciding that in the printed word itself, which symbolizes each sound in any given case.

These two phases of work having been well done, the child is prepared to enter upon the definite use of a First Reader, and the study of simple thought in connected sentences.

The nature of work with connected sentences, is the question now to be considered. Take for example, Lesson XV, on page 23 of the First Reader of the Indiana Series:

"Come, mamma, do come!" says Dickie Rat. "See this little box. May I go in it to play? It is a nice box to play in."

"Oh no, Dickie!" it is a trap. We will not use it."

This example is one in that phase of reading work in connected sentences, in which the thought is not valuable in itself.

In this phase there are two divisions based on the degree of difficulty not in the selection itself, but in the manner of putting the work.

In the first division, which it is the intention here to illustrate, the point for consideration is indicated by the teacher's question; hence it does not devolve upon the pupil to work out the ideas or points for consideration.

The point for debate being given by the teacher's question, it remains for the pupil only to answer the question, and to give his ground for the answer.

In the second division, (which is not to be illustrated at this time), the ground of difficulty is higher, in that the pupil is required to determine for himself the appropriate points for consideration, as well as to determine the answer and the ground for the answer.

The two divisions are alike, in that they both involve connected sentences; and in that the thought is not valuable in itself considered.

The first division of the phase, pertains to the connected sentence work

in the first and second years of the school; and the second division, to that of the third year. Thus the first three years of school are marked by the presence of the principle that the child is taught to obtain the *meaning* of language, from the language itself; and that the thought is not valuable, and is therefore not sought for itself.

During this period, it is not the aim in reading-work to have the child obtain the thought as thought, in and for itself. The obtaining of the thought is, however, a necessary incident of the true aim; which is to give the child *power to determine the meaning of language from the language itself*.

Reading work of this nature, is succeeded by that phase which deals with discourse containing thought valuable in itself, in which there is a triple aim:—

First, To increase the child's power in determining the meaning of language from the language itself.

Second, To give him an insight into the various forms of discussion; and the peculiar manner in which they exhibit thought. That is, to give him skill in analyzing and interpreting Descriptions, Narratives, Expositions, and Arguments.

Third, To put him into possession of permanent and valuable products of thought.

This phase of reading-work extends approximately from the beginning of the fourth year to the end of the school course.

As indicated in the foregoing, the aim at this time is to explain the manner of dealing with connected sentences in the first division of work, in which, the thought is not valuable in itself.

It is to be remembered that this division is distinguished from the one succeeding it, by the fact that it involves a lower degree of difficulty to the pupil, in that the teacher indicates by his question the idea for consideration, thereby requiring from the pupil two points only:—

First, The answer.

Second, That characteristic in the language which is the ground for his answer.

In answer to the question, How should the teacher deal with this selection? two things are to be stated. One of these, is the condition of the teacher's mind as to the nature of the work; and the other, the two sides for consideration in the selection.

The first thing in regard to the teacher's attitude is, that he should hold strongly to the following two principles:

First, The aim in teaching a child to read, is to give him the power to determine the meaning and sounds of language from the language itself.

This principle excludes in the lesson, any reference whatever to the picture, or to diacritical marks, or to stories on the part of the teacher illustrating the meaning; or to the teacher's giving oral readings of the sentence, or in order to have the pupil imitate them.

Second, Each point in education should be dealt with in that manner that will call forth the highest degree of activity and independent thinking on the part of the pupil, that the point by its nature, is fitted to call forth, and the development of the child enables him to exert.

The two lines of work in the selection are:—

First, The working out by the pupil himself, of the *meaning* of the language as determined by the language itself.

Second, The working out by the pupil himself, of the *pronunciation* of each word as determined by the word itself, in so far as possible.

Growing out of the mastery of the meaning, he is to determine for himself the nature of the oral expression.

The second principle given above, determines two things; one negative, the other affirmative. The negative conclusion is, the teacher is not to question upon obvious points. For example, in the given selection the pupil is not to be asked the kind of box, with the intention of obtaining the answer that it is a little box, etc. The affirmative conclusion is, that the questions are to bear upon the not obvious; upon the hidden points.

Two things remain for consideration:—

First, What are the obvious points to be questioned upon in the given selection, and what characteristics in the language indicate the answers?

Second, How would the pupil be able to determine for himself the pronunciation of any new word that occurs in the selection?

There is to be considered first, what the hidden or not obvious points are, in the selection. These that are here indicated, are merely suggestive. It is not meant that they are necessarily the ideas that should be considered.

In the study of any given selection by a teacher, the not obvious points would probably differ from those selected in the same work by any other teacher. Substantially, however, they would agree. Just *what* the points are, is not so important as that they should be points that are *not obvious*.

In this selection, the first thing to be considered is, *How many are represented as speaking?*

The answer to this is, That three are so represented.

This, according to the principle, is to be followed by the question, What in the language indicates that three are speaking?

The fifth, sixth, and seventh words in the first paragraph indicate one

speaker; the remainder of the first paragraph another; and the last paragraph, the third speaker.

A second point for consideration is the following:

What in the language would signify that the first speaker is a person?

Three things in the language tend to show that it is a person. The language used by the first speaker; the language used by the third speaker, with the exception of the expression "a trap," the word "says," and the capital in the word "Rat."

A third idea for consideration is,—*If the first speaker is a person, is it a young or an old person?*

If the answer be made that it is a young person, this is to be followed by the question, What in the language indicates it?

Those parts of the language that indicate that it is a young person are: The use of the word "mamma"; the ending "ie" in the word "Dickie"; the use of the word "little"; and the request to be allowed "to play."

A fourth idea that is not obvious, and is hence to be questioned upon is,—*Which is nearer to the box, the mother or one addressing her?*

If the answer be made that the mother is farther away, the question then arises—What in the language has such indication?

In answer to this, it is to be said that the words "come," "see," and "this," in their connection, indicate that the speaker is nearer than the mother.

A fifth point to be dealt with is,—*What in the language indicates that the first speaker is not a person?*

In answer to this, the child is to be led to see that the word "Rat"; and the expressions "little box" and "a trap", as signifying the same object, indicate that the speaker is not a person.

Two other ideas, although somewhat difficult, might with some classes be considered. One of these is,—Is it indicated in the expression, "May I go in it to play?" that the rat is outside of the box and wishes to go into it to play, or that he is already *inside* of it, but being *still*, wishes to move *about*?

In the discussion of this point, the distinction between the words "in" and "into" could be brought out.

The other point is the difference in meaning, if the last expression were, "We *shall* not use it," instead of "We *will* not use it."

In the discussion of this point, something of the distinction between the words "shall" and "will" could be made clear. By many, however, these last two points would be considered too difficult for the children at this stage. This is to be left to the judgment of the teacher.

Attention will now be turned to the nature of the work in determining

the pronunciation of a strange word. Let it be supposed that the only new words in the given selection are the words "come" and "do."

In the work of the first three months, the child would have learned as analogous the words *dome*, *home*, *Rome*, and the word *some*; and the analogous words *go*, *ho*, *lo*, *no*, *so*; and the word *to*.

On this basis, the child would be led to decide for himself, that the word *come* agrees in sound with *home*, *Rome*, etc., or with *some*; and that the word *do*, agrees in sound with *so*, *lo*, *no*, etc., or with *to*.

The mere consideration of these points, together with the meaning of the sentence, would bring before him the oral words which he has many times used, and thereby enable him to decide.

If the words *Dickie*, *us*, *nice*, or *may*, were new words, the mode of deciding their pronunciation would be substantially the same.

The child's idea of the pronunciation of a new word must be based on his knowledge of the analogy of form and sound already acquired during the first six months.

In conclusion, it is to be noted that in this mode of considering the reading lesson, the child would become master of many points in language, incidentally; such as the force of quotation marks, necessarily made evident in determining the number of persons speaking; the use of capitals, in considering whether the speaker is a person; the force of the terms "this" and "that" in determining whether the speaker or the mother were nearer the box; the distinction in meaning between "in" and "into", "will" and "shall"; the force of periods, exclamation points, etc.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw Normal School.]

METHOD IN MULTIPLICATION.

MULTIPLICATION has two phases. One in which the result is reached intuitively through observation, and fixed in memory by repetition. This phase involves what is generally known as the Tabular work. The other phase is the one in which the result is reached by a series of mental steps. These steps are necessitated by the inability of the mind to fix and hold all the possible results growing out of the combinations. To relieve itself, therefore, the mind makes the combinations by parts; thus giving rise to a series of steps—the process in multiplication. It is this

series of steps—this process—with the mental activities involved, that will be set forth in this article.

The article will assume as a basis a knowledge of the multiplication table and of the decimal system, in part; so that any number of times tens or any number of times hundreds, etc., can be thought as readily as any number of times a primary unit.

An analysis of the process will show the following steps: The separation of the multiplicand; the separation of the multiplier; and the reductions of the products. Each of these has subordinate steps. The questions to be decided are, which of these steps is to be taken first, and which prepares the way for the next? The answer must be derived from the fact that only simple, easy steps can be taken by the child mind. This fact forces us to the conclusion that the first step should be the separation of the multiplicand; using a multiplier of one order in which no reductions will be required in the product.

The child must be led to make this analysis through observation and inference. It must view each part as a whole, and, from a remembered result of some like combination, give the product of each part; then synthesize these new wholes into another whole. This step has caused the child to observe, infer, remember, make inductions, deductions, and perform the acts of analysis and synthesis, instead of merely memorizing the form, as is too often done. After drill on this point, the formal statement, that to multiply any number multiply each part separately and unite the result, will be made.

The next step, determined by the same means, is the reduction of the partial products; still using a multiplier of one order. This will lead to a knowledge of the place of beginning the process. Previous to this, it has been immaterial where the process was begun; but for the sake of habit it is well to begin at the lowest order. The place and the number of reductions to be first made must be ascertained. The decision will be that only one reduction, and that in the highest order, should be first made; for then there will be no number to unite with the product. The only mental acts required in this step are the inference that the law of the decimal system holds good in this product, and from this inference the deduction that if the product of the highest order makes one or more of a higher order it must be reduced to the higher order.

After this step has been taken, reductions in two or more orders, or in any order, can be taken. The reductions will require the same mental acts as before, with the synthetic act of uniting the reduced product to the product of the highest order. This synthetic act will require the re-

calling of the fact that only like things can be united. The difficulty of making this union will lead to the deduction that the process is begun at the lowest order so that if the product of any order makes one or more of the next higher it can be reduced and added to the higher.

The separation of the multiplier can now be made. The analysis of the step shows that the multiplier must be separated in two ways; first into parts, units, tens, etc.; second, some of the parts into factors. The separation into factors must be made first. This will be into one ten, and any number of tens; into one hundred, and any number of hundreds; etc. Use the one ten as one order, and, after the solution of many problems, the likeness and difference between the product and the multiplicand will be observed. This comparison will result in the induction that the likeness and difference will always exist between the product and the multiplicand after it has been multiplied by ten; and the generalization, that to multiply any number by ten move the number one place to the left of the starting or decimal point, will be made. To multiply by more than one ten requires two mental acts; the first an analytic act, the second a synthetic. In the analytic act the multiplier is separated into a number of times ten. That is, it is separated into factors, one of which is ten, the other the number of tens. In the synthetic act, two syntheses are made. The first, thinking ten times the number; the second, thinking so many times that product. Hundreds can be treated as tens have been before tens and units are used, if desired. If not, take tens and units next. The multiplier is now separated into units and tens, and the tens into factors. The only mental acts are the analysis of the multiplier and the synthesis of the products. These acts differ but little from the acts in the preceding step.

Thus far, only integral multipliers have been considered, but the multiplicand was not so restricted: it can be either integral or fractional.

The final step in the process is the use of a fractional multiplier. The taking of this step is conditioned by the knowledge of the effect of multiplying any number by a number that is too large, and a knowledge of how to separate a number into equal parts. The step involves three mental acts. First, the synthetic act—multiplying by the numerator of the fraction; second, the comparison of the multiplier with an integral number composed of the same number of units; third, the analysis of the product into the true product.

If the steps are taken as indicated in this discussion the pupils see why the partial products are written under "the figure that produced it", and why we "point off as many decimal places in the products as there are decimal places in both multiplicand and multiplier."

Summarizing: the steps in multiplication, including the Tabular work, are:—

- I. Multiplying one order by one order, (the Tabular work.)
- II. Multiplying more than one order by one order, including fractional and denominate numbers.
 1. Without reductions in the products.
 2. With reductions in the products.
 - a. Reductions in the highest order.
 - b. Reductions in any order.
- III. Multiplying any number by more than one order.
 1. Multiplying by one ten.
 2. Multiplying by any number of tens.
 - a. By one ten.
 - b. That product by the number of tens.
 3. Multiplying by tens and units.
 - a. By the units.
 - b. By the tens.
 - (1) By one ten.
 - (2) That product by the number of tens.
 - c. Uniting the products.
- IV. Multiplying by a fractional number.
 1. Multiplying by the numerator of the fraction.
 2. Correcting the product.

This series of steps will extend through not less than five years of school work.

J. S. T.

ORGANIZING IDEA OF THE PERIOD OF NATIONAL DEVELOPMENT.

THE Revolution developed the Form of a Nation and expressed the result in the Constitution. The forms set up by this instrument wanted the living spirit to animate them. This spirit requires that the people's thought break over the narrow limits of state lines and contemplate the broader and deeper questions that arise out of the life of the whole. This broadening of thought does not belong to political problems alone, but to all forms of institutional life. Questions of government, religion, education, and industry must interest the whole people. The spirit of nationality does not require the people to be a unit on the details of organization and the means of accomplishing given ends, but it does require them to transfer their admiration and affection from the state to the nation—that they love the good of the whole more than the narrower inter-

ests of the locality. This idea requires an organism of thought and feeling so sensitive—so sympathetic—that the response of all the other parts is quick and perfect when any portion of the organism is affected.

It fell to our history between 1789 and 1860 to produce this result. The movement of this idea of nationality is the fundamental process in this part of our history. It is the presence of this overshadowing movement that constitutes this a period in the life of our people. It follows that the Growth of the Spirit of Nationality is the Organizing Idea for this period—the idea in the light of which all the events of the period are to be interpreted, integrated and separated, coordinated and subordinated.

This principle of growth sets the problem, on the side of knowledge, for this period and for the particular events. What the problem of this period is and how each event in it is to be interpreted are not matters of choice—not accidental, but are determined by the fundamental idea. For the period as a whole, the problem is to understand the growth of nationality, the phases under which it manifested itself and the processes by which it was realized. For the particular event, the problem is to see how it grew out of the movement of the general idea and how much it contributed to this movement.

To understand Hamilton's financial plan the student must explain its origin and passage in the financial necessity of the whole people, and its effects by changes wrought in the sentiment of nationality. Each part of the plan is to be interpreted in the same way. The Funding Bill stimulated our national pride, because it made possible the full payment of our foreign debt and bound to the nation by ties of interest all persons holding evidences of the nation's debt. The Assumption Bill was a confession that the nation was a better paymaster than the states. The United States Bank identified the business interests of the people and the government. Hamilton's other measures are to be similarly traced into the great current of thought that characterized the period. Although a powerful opposition arose to all these measures, and although this opposition movement was based on the sovereignty of the state, yet, the movement of the people's thought was steadily toward nationality. Even the opposition argued for the good of the whole, thereby contravening their fundamental doctrine. The struggle for neutrality nationalized patriotism by centering our thoughts upon American problems as well as established our policy toward the warring nations of Europe. The preservation of this spirit of unity is the burden of Washington's Farewell Address. The gain made by this new idea in one decade is well indicated by the passage of the Alien and Sedition laws. The wonder is that more leg-

islatures than those of Virginia and Kentucky did not denounce them. It is only explained by the fact that France had insulted our national pride.

If any more proof were needed to show that nationality is the dominating idea, it is furnished by the fact that Anti Federalists, as soon as successful, fell into the current set in motion by their adversaries and did their share, reluctantly sometimes, toward binding the hearts of the people to the nation. The purchase of Louisiana was the greatest event of Jefferson's administration. What is the problem here? It is set by the law of the period. Stated for this event it reads in this way: How did the purchase of Louisiana influence the growth of nationality? How were our political, social, and industrial institutions affected by this event? The answer is not found in knowing when, where, by whom, and for how much the purchase was made. These facts should be known, but do not constitute the answer. Neither can it be reached by deciding who deserved the greatest credit for the work, Jefferson, Monroe, or Livingston. No. The answer can never be reached by dwelling upon facts that only particularize and differentiate. It must be found by discovering the general truth in this particular event. The answer is correct when the student understands: 1, That this event checked the growing hostility of the people of the southwest toward the general government; 2, That the control of the Mississippi River gave the southwest a cheaper and easier route to the Atlantic states; 3, That the possession of land beyond the Mississippi gave added force to arguments for a system of internal improvements; 4, That this opened up a new field for the conflict between slavery and freedom; 5, That this act having no sanction either in law or precedent was a more deadly blow at strict construction than ever Hamilton or Adams dealt. This briefly illustrates how our principle of interpretation forces the pupil to trace the effects of an event back into the great movement of the period out of which it grew, thus organizing it into the series of which it forms a link. This interpreting idea sets the problem for a series of important events as unlike the above as the War of 1812. What is it for a series of military events? Can it be solved by knowing the battles of this war—who the generals were, how many were engaged, what movements were made, and how many were killed? None of these, nor all together, constitute the answer. The principle of interpretation is at least partially satisfied when the student sees the war as produced by a current of thought, more or less national, whose origin is known. On the side of results the war is interpreted when the student sees: 1, That the war in principle destroyed both parties—the Federalists dying as an organization after espousing the doctrine of strict

construction, and the Anti-Federalists living as an organization only by giving up their original principle of action and adopting the idea of a liberal interpretation of the constitution; 2, That the condition of the currency forced the re chartering of the United States Bank; 3, That the increase of the national debt and the rapid rise of home manufactures forced the Anti-Federalists to adopt a protective tariff; 4, That rapid movement of population to the West after the treaty of peace gave a powerful impulse to internal improvements; 5, That this war with our old enemy drew the interest and affection of the whole people toward national problems and so weakened the opposition that Monroe's administration is called the era of good feeling. In this way our organizing idea leads us to make an historical interpretation of a series of military events rather than view them as students of military science.

As the idea of nationality emerged from the era of good feeling, it began to take on a new form. The campaign preceding the election of 1824 was peculiar in that there were no great issues—unless men are issues. There were four of them—Adams, Jackson, Crawford, and Clay. Each of these had a group of followers who became strongly attached to him. Each stood first in the affection of the people of his locality. Through this personal attachment men took an unusual interest in the election. Jackson was defeated, and from that day he and his followers began the campaign for the election of 1828. They succeeded in bringing into full play the personal element that showed itself in the preceding campaign. These men enforced the idea, by every means in their power, that Jackson was the candidate of the common people; that he was, by birth, association, and interests, identified with them; that he would administer the affairs of the nation to their advantage, as they had been heretofore, for the interests of the aristocracy. This appeal roused the interest of the mechanic, the farmer, and the frontiersman in a way not before realized. From that time to the present no campaign has ever been won that ignored the plain people. Whatever we may say of the methods of the Jacksonian politicians, it must not be forgotten that they first brought the masses into intimate contact with national affairs, and made them feel that their weal was bound up with the government of the nation. The new phase of nationality is the interpreting idea of Jackson's administration. The spoils system—its origin and growth—is explained by it. Jackson's fight with the U. S. Bank was a legitimate outcome of the new power that was behind him. The consciousness that he was the people's hero, nerved Jackson in his fight with Calhoun and the nullifiers. The transfer of the national funds to State Banks was done for the purpose of bringing them to the door of the people. The

great campaign of 1840 was won by the Whigs because they successfully appealed to the new factor in politics. The immediate and remote results of binding the affection of the common people to union can never be measured. It was the dominating power in the growth of the anti-slavery movement, and, marshalled on the side of freedom, it won in the great Civil War.

Any student who traces this great idea through this period will cluster around it the historical events of that time. These events throw light on the idea and it illuminates them. They find their life in it and in turn contribute their influence to feed the movement.

W. H. MACE.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

A HISTORY RECITATION.

SUBJECT, CAUSE OF THE REVOLUTION.

No matter how many books on the theory of teaching history, the teachers may have read and digested, nor how broad a view he may have of the subject, the matter finally is brought down to the recitation. The teacher finds himself asking how he can best present the subject to his pupils during the recitation hour. To answer he will have use for all the *purposes* of history study; for all the principles of teaching he may possess; and for a large amount of "common sense."

This lesson had been assigned on the day just preceding the one on which the recitation occurred. The pupils were requested to learn all they could on this subject by reading and studying the text-book they were using in the class. After this they were to read as many others as time and opportunity would permit. Each pupil was expected to make an effort to decide from his reading and studying what *the* cause of the war was.

These pupils were about fourteen years old. They were *not* Bacons. They are likely to give some queer conclusions, and do some senseless things in school. These do not disconcert the wise teacher. He expects them and prepares for them. He does *not* say, "Why! I'm surprised!! You are not thinking!!" He may be surprised, but he does not show his surprise. The pupil may not be thinking. He asks questions in such a way as to make him think.

THE RECITATION.

Teacher. John you may tell us what you think the cause of the Revolution was.

John. French Predictions. We have caught them at last, said the French prime minister as he signed the cession of nearly half of North America to the English.

Just at this point John was interrupted by the teacher.

Teacher. John, what did you understand the subject of our lesson to be?

John. Cause of the Revolution.

T. What is the name of the cause you were giving?

J. "Don't know; but the book gives it that way."

The teacher did not ask him if he were a parrot, or tell him that he would hang him up in a tin cage if he didn't quit reciting in that senseless way. No, he quietly said, "You may give *all* that the book gives about this." John recited the entire paragraph word for word. He, evidently, had studied his lesson, and certainly should have credit for his motive, at least. This the teacher gave, and led in the following:

Teacher. Who was meant by "them" in your first sentence?

John. After thinking it over, I don't know.

T. Showing no signs of displeasure. Repeat the next sentence you gave us awhile ago.

J. "I am persuaded," said another French nobleman, when he heard of the act, "that England will soon repent of having removed the only check that could keep her colonies in awe."

T. What was the *check* that had been removed?

J. After considering a moment, said he didn't know.

T. Give the rest of the paragraph that you recited awhile ago.

J. "They stand no longer in need of her protection."

T. Who is meant by "*they*?"

J. The colonies.

T. Right. Proceed.

J. She will call upon them to contribute towards supporting the burdens they have helped to bring upon her, and they will answer by striking off all dependence.

T. What is meant by *she*?

J. England.

T. Right. What burdens had the colonies helped to heap upon England?

J. The debts made by the French and Indian war.

T. Right. What made you think so?

J. In the first sentence it says that the French prime minister signed the cession of nearly half of North America to the English. I know this was done in the treaty that closed the French and Indian war.

T. Now can you tell who is meant by *them* in your first sentence?

J. Yes, sir. It meant the English; and the *check* you asked for was the French. They had given up all the land north of the St. Lawrence and the Great Lakes, and all east of the Mississippi. The colonies now had nothing to fear, and did not need the protection of the mother country.

T. Do you think this was a cause of the Revolutionary war?

J. I don't think that caused the war, yet it seems as if it helped.

T. We will leave this for the present. Did the English propose what the French predicted?

Pupil. Yes they proposed to have the colonies to help pay the debt by taxation.

T. Do you see anything unfair in the proposition?

P. No, sir.

T. Why did the colonists object to it?

P. They said that as they were not represented in Parliament they could not be taxed.

T. Upon what grounds did they claim this?

P. Upon their rights as Englishmen.

T. Were the colonies united on this idea?

P. I think they were.

T. When and where was there made a formal declaration of these rights?

P. First in the Virginia House of Burgesses. And in 1765 delegates from nine colonies met at New York and prepared a Declaration of Rights with remonstrances to the King and Parliament.

T. What happened that helped to bring about these Declarations?

P. The Stamp Act. This was repealed though a year after. But they put taxes on tea, paper, glass, and painters' materials. They still claimed the right to tax the colonies.

We have given enough of this recitation to see the teachers' place. Did space permit, we would give it all. From what has been given it may be seen that the teacher, after following the history of the attempts to tax the colony, will have led the pupils to see that the idea of union is growing with the colonists, and that it is based on their rights as Englishmen.

He will trace the history of this idea, on this basis, from the time of its birth to its realization. He will also lead the pupil to see that the idea was finally realized but upon a different basis, viz., upon their rights as human beings. He will then show that the real cause of the war was the refusal of Great Britain to grant these rights

F. L.

THE MULTIPLICATION TABLE.

In teaching this table it is better to appeal to the eye than to the ear. In nearly all *practice* the eye is used. The figures are presented to the eye, and the result with its formal expression is suggested. But, generally, this table is taught orally. The teacher says, "What are seven times nine?" The pupil answers, "sixty-three." No figures are made. "But," says some one, "we learned this table this way." Yes, true, we learn many things in spite of the teachers and their methods. Often much time and strength are wasted, however, in learning useless things—things that are in the way.

Put figures on the board, or some other place, where they may be seen. Point to them and have the pupil give the result. He should *write* it as often as practicable. He should often do the pointing himself. There are many devices for presenting these figures to the eye. Any inventive teacher (*all* teachers ought to be inventive) will be able to think of many ways of doing this. Some put the figures from 1 to 9 inclusive on the circumference of a circle, and put the multiplier at the centre of the circle. They then point to the figure at the circumference, and the pupil gives the product of the two. This is *a* device, not *the* device that is in accordance with the principle that we should appeal to the eye in teaching the multiplication table.

These figures may be arranged in square or oblongs. Or they may be written as follows:

7 × 8	6 × 5	5 × 9
9 × 4	8 × 9	9 × 7
3 × 7	6 × 7	8 × 7

Have the pupil point to each combination and give the result.

Place problems on board as follows:

4934	6743	7963
9	8	6
—	—	—

Have pupil point, give, and write results.

GEOGRAPHY.

WHAT THE PUPIL SHOULD KNOW IN GEOGRAPHY AT HIS GRADUATION
FROM THE GRAMMAR SCHOOL.

1. The general arrangement of the earth's slopes, as grouped in the great continental river basins; together with the *general* outlines of the continents.
2. The heat-belts of the earth, as determined by latitude, elevation, etc.
3. The belts of trade-winds, return-trades, and principal monsoons.
4. The general distribution of rain fall.
5. The division of the earth's surface into fertile and barren regions, as determined by soil and climate.
6. The natural floral and faunal regions, and mining districts.
7. The races which dwell upon these regions.
8. The world's centers of trade, principal capitals and historical cities, about *fifty* in all; and the principal routes of trade.
9. The location of countries upon the earth's great slopes.
10. The proper use of the atlas and gazetteer; and above all, our pupils should be led to acquire a taste for good books of travel.—*The Teacher at Work.*

GENERAL INFORMATION.

HINTS.—I. The account of the opening proceedings of Congress contain a great many points of interest. In the House who presides before the speaker is elected? How many members of the House are there? How many make a quorum? What is meant by one member's "pairing" with another? McKinley and Carlisle were both defeated candidates for speaker; hence they were appointed to escort their successful rival to his seat. Do you see in this anything significant of the spirit that ought to exist in every citizen of a republic? Mr. Kelley is the oldest member of the House; hence he was chosen to administer the oath to the new speaker. Any other member could have done it. Do you discover the "bolt" among the Republican members in the vote for chaplain? Mr. Milburn, the famous blind preacher, has long been chaplain. He is a Democrat. Seats are chosen by lot. Notice that the Senate is a "continuous body"; it is always organized. The House is not. In what consists the difference? The expiration of the term of office is the main point. Note that the expiration of the terms of the senators from the new states is to be fixed by the Senate.

2. In connection with the article on reapportionment, look up the matter of Representation in the U. S. Constitution.

3. Why is the recognition of a new government brought about by revolution a matter of delicacy and responsibility? In his message the President tells what provision he has made for the formal recognition of the New Brazil.

4. Our younger readers should study the President's message paragraph by paragraph. Of course many things in it will not be plain to them. But don't let them go until they are plain. Ask your teacher, or your father, or some person who can clear the difficulties for you. They are all points that you ought to understand. So don't be sparing in your time and labor.—*Week's Current*.

THE REPUBLIC OF BRAZIL.—On the 17th of November the Empire of Brazil ceased to exist and the Republic of Brazil began its existence. This revolution was unexpected both in America and Europe. This revolution has been followed by a provisional government that proposes to "guarantee order, liberty, and the rights of the citizen."

"The army and navy, the ordinary functions of the department of justice, the civil and military administrations will continue under the existing organizations."

The Emperor was notified that he was no longer recognized as ruler of Brazil, and was requested to leave the country. He left for Europe on the following day.

It is said that he was a kind and good ruler, always having the good of his people at heart.

It is supposed that the two chief causes of the revolution were the despotic course of the government in the last election, and the sudden liberation of 600,000 slaves without paying their owners for them. This was done in the absence of the Emperor by his daughter Princess Isabel.

The provisional government has been formally recognized by the U. S. government.

REPUBLIC OF CENTRAL AMERICA.—A plan of Union of the five Central American Republics has been presented, and the Diet at San Salvador has approved it. There is to be a union of states so far as foreign matters are concerned. An Executive is chosen for one year, and the Council are to direct foreign affairs.

The different states are to manage their internal affairs, but there is to be a common postal system, and trade between the states is to be free.

KINDERGARTEN DEPARTMENT.

[This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools. He is also the author of several educational works.]

WHAT THINGS TO USE IN NUMBER LESSONS.

OF course, tooth picks will do in a measure if the sticks are inaccessible, but they will not do so well as the sticks. The tooth picks are uneven, differing in length or thickness. They will not lie close together either side by side or end to end, thus refusing to unite into distinct twos and threes. In fact, they are tooth picks and stubbornly resist every attempt to put them to any other service.

Not so the sticks. As they come to the school-room, they have not yet received a vocation. They are merely well prepared, well finished material that has put aside all rawness and is ready for any legitimate service that lies within its possibilities. Each stick resembles its comrades closely in all its dimensions, in smoothness and finish, it is a stick, a *one-stick* of a certain size and nothing more. When two of them are laid side by side or end to end, they fit so closely that they form a new unit, as it were; yet the faint dividing line between them clearly reveals the origin of the new unit, and declares it to be a *double unit* of two sticks.

Yet the very fact that the sticks are so closely similar in all visible respects becomes an obstacle when we attempt to use them in leading the children with their aid to abstract notions of numbers from more concrete notions of numbers of things. The process is too simple. A comparatively pure number abstraction comes to the untrained mind so abruptly that the child is frightened by it, as it were, and dares not take the step. The *wooden* sticks and the *number*, this is all. As soon as the child's mind moves away from the wooden sticks, he is at once lost in an abstraction which on account of its very simplicity has no reality for him.

The untutored mind needs objects of more complexity, objects in which several *visible* qualities are united; so that in the downward or analytic process it can get a start, as it were, and become accustomed to the movement. Some new quality or qualities by which one stick may differ clearly from another must be added. When the child, after grouping four red sticks in two sets of two red sticks, and four green sticks in two sets of two green sticks, recombines the two fours by grouping two red sticks with two green sticks, the differences in color will aid the child in making the number abstractions $4 = 2 (2)$ and $2 (2) = 4$.

At first the child sees *four red sticks* and *four green sticks*. Then these groups are broken up, respectively, into two sets of *two red sticks* and *two green sticks*. In each case the same emphasis lies on each of the three ideas. Thus, in the first, *four red* and *sticks* are equally emphasized. Therefore, their separation and, hence, the abstraction of any one of them from the remainder is difficult. But, when the child recombines *two RED sticks* and *two GREEN sticks* into *four sticks*, the idea of color is at first more strongly emphasized in the groups of twos and, then, wholly eliminated in the result, *four sticks*. Thus the process of abstraction is started, and the subsequent elimination of the idea *sticks* has been rendered considerably easier.

Indeed, for the purpose of facilitating the process of number abstraction—paradoxical as this may seem—it is quite desirable to add still another quality to the first things used in number lessons. This is accomplished in Mrs. Hailmann's Second Gift Beads. In these the wood assumes not the shape of the invariable stick, but that of small half-inch cubes, balls and cylinders.

The cost of this apparatus is trifling. Two dollars will supply an ordinary first primary grade, even in a city school. Fifty cents will buy enough two inch sticks assorted in six colors; and thirty cents will supply the needed two inch plain sticks. When, at the same time, it is remembered that where great economy is imperative, the beads may be dispensed with, and the colored and plain sticks alone pressed into service, it would seem that no school need be deprived of these helps.

HOW TO USE THE BEADS.

1. In counting: *a* The child receives a small box of perforated beads and a shoe string. He strings in order three red balls, three orange cylinders, three yellow cubes, three green balls, three blue cylinders, three violet cubes, etc. It will be observed that in the contemplation of the result of his handiwork, the child finds pleasing changes in the form and color of the beads; but through all the variation there runs the *constant* idea *three*, or in the process of stringing the constant one, two, three. It goes without saying that this must afford great help in initiating number abstraction.

b The child strings one red cube, two orange cylinders, three yellow balls, one green cube, two blue cylinders, three violet balls; etc. This exercise, which isolating more and more the constantly repeated *one, two, three*, fixes the true difference between these ideas. The same is the case with the following exercise.

c One violet ball, two blue balls, three green balls, one yellow ball,

two orange balls, three red balls; one violet cylinder, two blue cylinders, three green cylinders, etc.

2. In analysis: The child strings *four* violet cubes, *two* blue cylinders and *two* green cylinders, *one* yellow, *one* orange, *one* red, and *one* violet ball; *three* blue cubes and *one* green cube; etc. Here the child contemplates successively *four* cubes [4], *two and two* cylinders [$4 = 2 \times 2$], *one and one and one and one* balls [$4 = 4 \times 1$], and *three and one* cubes [$4 = 3 + 1$].

3. In division or separation into equal groups: The child strings two red, two yellow and two blue cubes [$6 = 3 (2)$]; three orange and three green cylinders [$6 = 2 (3)$]; six violet balls; etc. In contemplating the result of his work, the child may read:

a In six there are three twos; in six there are two threes; in six there is one six; or *b* three twos are six; etc.

4. In multiplication: The last exercise *b* is a true multiplication. Others are suggested in the following: *a* The child strings two red and two orange balls, [$2 (2) = 4$]; three yellow and three green cylinders, [$2 (3) = 6$]; four blue and four violet cubes [$2 (4) = 8$]; etc.

b The child strings two violet and two blue cubes, [$2 \times 2 = 4$]; two green, two yellow, and two orange cylinders, [$3 \times 2 = 6$]; two red, two violet, two blue, and two green balls, [$4 \times 2 = 8$]; etc.

5. In "subtraction" or separation into two usually unequal groups; The child strings one red and four orange cubes, [$5 = 1 + 4$]; two yellow and three green cylinders, [$5 = 2 + 3$]; three blue and two violet balls, [$5 = 3 + 2$]; etc. This is the initial step leading to true subtraction, the most difficult arithmetical operation. In order to perform it fully, the child is given a certain number (5) beads as a minuend. From this a certain other number (3) is removed, and a third number (2) remains. It will be seen that as soon as the subtrahend is removed the *things* representing the minuend and the subtrahend have vanished. They exist henceforth only in the child's memory and imagination. Nothing similar occurs in any of the other operations which are for this reason very much easier to the child.

6. In addition: A simple inversion of the reading of the previous exercise will transform it into an exercise of addition. The one red and four orange cubes will read $1 + 4 = 5$; the two yellow and three green cylinders will read $2 + 3 = 5$; and the three blue and two violet balls will read $3 + 2 = 5$.

6. In part-taking: An inversion and extension of the exercises in

division will yield exercises in part taking. Thus the exercises given above under "division" may be read as follows :

$a \ 3 = \frac{1}{2} (6)$; $2 = \frac{1}{3} (6)$; $2 (2)$ or $4 = \frac{2}{3} (6)$. $b \ \frac{1}{2} (6) = 3$;
 $\frac{1}{3} (6) = 2$; $\frac{2}{3} (6) = 4$.

For a full, methodical presentation of this and other related subjects the reader is referred to "Primary Methods," published by A. S. Barnes & Co.

COUNTRY SCHOOL DEPARTMENT.

[Conducted by W. H. CAULKINS, Supt. Tippecanoe County.]

LANGUAGE.

UNDER the head of language we mean to include everything usually so-called *spelling*, and also *technical grammar*. In the previous articles we have treated of what may very properly be called the thought studies. We have now to consider the form-studies. We wish to suggest no theories, but to confine ourselves to work actually done in country schools, and the sample we give will very probably be recognized by the writer's former pupils. We wish we had space to give a number of such specimens of real work. In this number we wish to consider only that work which is usually called language.

The chief difficulty with which we have to contend is lack of time, and we must be remembered to have this in mind in all that follows. The language work for the first reader should consist in conversation lessons and in copying of black-board or reader work. These conversation lessons should have for their sole aim to lead the pupils to express themselves well. The objects may very properly be the pictures in the readers, or something connected with the reading lesson, and may be joined with that lesson, thus adding but little time. The copying may be done at seats, and it will take but *two minutes* to go over ten slates and erase any mistakes. This is actual experience.

In connection with the second reader, sentence-making should begin. every new word being put into a sentence. Further, descriptions of natural objects should begin. This is work necessarily presupposed for the coming geography work, and can be utilized for this purpose. Reproduction work may begin here, the stories being chosen so that they will be easily remembered.

In connection with the third and fourth readers the same work should be continued. The stories for reproduction may be made longer. The

geography lessons may be reproduced, the reading lessons, etc. I have received many compositions on topics from geography lessons which would be creditable to any teacher. The following is a sample of work done in the way of sentence-making, the sentences to be connected in thought; the words were *snug, safe, mountain-side, meads, briers, weeds, Quaker, quiet, merry.*

"Their snug and safe little cottage was on the mountain-side, overlooking flowery meads and distant hills. Their gayly-dressed children enjoyed themselves in many ways. In summer they went in search of berries, wading through tall weeds, and often scratching their plump hands on cruel briers that stood in their way. But the large, ripe berries which they brought home made them forget all their troubles. They often visited their Quaker neighbors to play with the quiet, happy, children, and after enjoying themselves very much, they returned to their homes with a merry shout."

The articles read for reproduction consisted of stories, fairy-tales, biographical sketches, descriptions of animals, plants, scenery, and other objects. The pupils enjoyed listening to these, and did not find it irksome to write out what they remembered of them.

The following illustrates another kind of work :

WHAT I DID DURING VACATION.

"I went rabbit hunting and had lots of fun. I went to the store five or six times, and I shot about two hundred fire-crackers, and ate lots of candy. I beat the boys shooting, and I went to the woods one day and chopped wood. I was skinning rabbits part of the time, but as I only had twenty-eight it did not take much of my time. I went a sleigh-riding part of a day and had a fine time."

The following exemplifies the *description work*:

"October 13, '85. The bean is as large again to-day as it was when put to soak, and it is nearly all white. The skin coat is thin and smooth, and it is a skin. The body is cream-color, and separates into two parts. The soaked bean is softer than the one that was not soaked. One side is larger than the other."

JAMESTOWN SEED.

"The surface of the shell is covered by large bristles. The color is green. The pod is in two divisions, and they are separated by a thin skin. There are many seeds in each division, and these are fastened to the sides and center. Their color is white."

The following illustrates the *paraphrasing work*:

"Looking up Lake Katrine they saw four dark objects coming toward

them, but as they came nearer they were clearly seen to be four vessels or barges with masts, and furnished with men who wielded pikes, spears, battle-axes, and held high against the glare of the lately risen sun, the chief Rhoderick's Pine-tree Banner. The pine-tree was the emblem of the alpine clan, because of its strength and hardihood. Their garments of plaid, the plumed bonnets of the strong rowers, rose and fell with every gesture or stroke of the oar that threw the clear water into smoky foam —."

The above productions show what may be accomplished if one gives his mind to the work. The principle for all of the "language work" is: Give the pupil some thought to write, and then let him write it. *Write, write, write*, is the only rule for success. Of course time out of school-hours is necessary to correct these papers, but no *true teacher* will complain at this. Give lessons in arranging matter logically; in seizing the thought in a paragraph, etc. Only clear thinking will produce clear writing. Give few rules for commas, semi-colons, etc., and let these be learned through actual use. Insist on neat, logical, simple, well-cut sentences. Accurate description is an efficient means of producing this.

To secure time for this work we have wholly abolished spelling as a special exercise, and our results justified the proceeding. Papers came in better and better, and the pupil learned to spell all the words he used simply by the frequent writing of them. We have no theory to offer for this (although we think it may be easily explained), but give it simply as a fact of many years' observation. We are convinced that from the lowest to the highest grades of the country school, the subject of "language" need be no bugbear to any one who studies it carefully.

THEY are slaves who fear to speak
 For the fallen and the weak;
 They are slaves who will not choose
 Hatred, scoffing, and abuse,
 Rather than in silence shrink
 From the truth they needs must think;
 They are slaves who dare not be
 In the right with two or three.

—Lowell.

A GAY, serene spirit is the source of all that is noble and good. Whatever is accomplished of the greatest and noblest sort flows from such a disposition.—Schiller.

EDITORIAL.

DID YOU FORGET to pay for your Journal *before* January 1, 1890? If so make amends as soon as you can get to the post-office.

JAMES H. CANFIELD, president-elect of the National Educational Association, is leaving no stone unturned to make the next meeting of the Association the largest and the best in its history. He has set his figures for attendance at *twenty thousand*. Indiana will of course be on hand with its quota.

THE Editor of the Journal is responsible for sentiments expressed in the editorial department, but does not necessarily endorse everything said by contributors, or by department editors, or by advertisers.

The Journal is not a *personal* organ, but is open to any one who has views on any live educational question.

READ THE ADVERTISEMENTS.—A reader of the Journal recently said that the advertisements were worth to him the price of the paper. How else can a teacher keep well posted as to the best schools, new books, new school appliances, and new everything that pertains to his work? This month's Journal contains an unusual number of new advertisements, and teachers can not afford not to read them.

CO-EDUCATION.

In this western country where nearly all colleges are open to men and women on the same terms, there is little discussion of the *old* problem "Co-education." It has been so thoroughly demonstrated that women can maintain themselves in the same classes with men, and that their presence in an institution does *not* make it necessary to lower the standard of scholarship—and further, that their presence has a civilizing and moralizing effect upon the school—that the question is now seldom mentioned in any of our educational meetings or school papers. The eastern colleges as a rule still hold to their old conservative ideas and refuse to admit women.

Recently the University of Pennsylvania was *bought* over to the modern idea. One Col. J. M. Bennett offered to give the institution a valuable adjoining property, provided it should be used as a college for women in connection with the university. The offer was accepted, and the *usual* demonstration against the admission of women on the part of the young men followed. The young men (?) declare that for every lady that is admitted at least two of them will leave. Sad to think of. Under similar circumstances boys—or some boys—usually "make fools of themselves."

The young man who objects to the admission of women to his classes for fear that the standard of scholarship will be lowered, (and this is always the plea put forth), makes a sad commentary on his mother, sisters, and lady associates. Such a one is either an egotistical coxcomb or else has been exceedingly unfortunate in the class of women he has known.

VOLUME XXXVI.

With this issue the JOURNAL enters upon its *thirty-sixth* volume. For thirty-five years it has worked faithfully and earnestly for Indiana schools and Indiana teachers. No other one instrumentality has done so much for the educational interests of the state. The volume for 1889 was the largest in its history, reaching nearly *eight hundred* pages, excluding advertisements, and the quality of matter was never better, according to the testimony of the best teachers of the state. During the year new a department was added, that is devoted to the kindergarten.

With this issue the size of the page is materially enlarged and the quality of the paper improved. The present editor is now serving his eighteenth year, and is determined that the JOURNAL shall keep pace with the best educational thought of the land. It is his ambition to make it *the best educational paper in the world for Indiana teachers*.

He wishes to return to Indiana teachers his unfeigned and sincere thanks for their long continued and hearty support.

The JOURNAL extends to all its readers a "God bless you", and wishes for each and every one a "*Happy New Year*."

TESTING THE NEW SCHOOL-BOOK LAW.

The Howard county case referred to in last month's issue was ably argued by prominent attorneys, on December 2, but the judge has not at this writing delivered his opinion. This case seems to cover all the points in the law under dispute and has been the most elaborately discussed, and is likely to be the one pushed before the Supreme Court.

Within the past month another case in regard to the law has been decided in Kosciusko county. One Mr. Blue, a patron of the schools, sued the township trustee to compel him to sell the relator certain of the Indiana books for his children to use in the schools. Judge Frazier, who heard the case, agreed with the Governor and Attorney General that the law is constitutional and will stand, but disagrees with them as to its being compulsory. He says: "It is not expressly required that these (Indiana) books shall be exclusively used in the schools, nor can that requirement be fairly implied. It is one thing to secure good books at a low price, and quite a different thing to compel their exclusive use in the schools."

The Journal has not expressed an opinion in regard to the legal phase of this law, as it does not profess to know law. It simply notes that good lawyers hold radically different views, and that the exact meaning of the law will not be settled till the Supreme Court rules upon it.

The present unsettled condition of things is working great harm to the schools in many places, and it is to be hoped that the Supreme Court will take this case up, out of its turn, and render an early decision.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN OCTOBER.

[These Questions are based on Reading Circle Work of 1868-9.]

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

ARITHMETIC.—1. Find the least common multiple of 9, 20, and 81.

2. What number multiplied by 24 will give $36\frac{5}{8}$ for a product?

3. Reduce to whole numbers of lower denominations $\frac{7}{16}$ of a mi., $\frac{8}{11}$ of a fur., and $\frac{5}{8}$ of a rod.

4. Multiply 1.01 by 10; divide 404 hundred-thousandths by 100; and add the results to .0025.

5. Find the interest of \$1 at 7% for 2 yrs. 3 mo. 20 da.

6. In what time will \$280 gain \$14.50, at 2%?

7. What principal, on interest for 2 years at 8%, will yield \$490?

8. What must I have paid for cloth which I sell at \$1.50 per yard, and thereby gain 21%?

9. A circular field is 40 rods in diameter; what is its circumference, and how many acres does it contain?

10. Explain the process of extracting the cube root of numbers.

SCIENCE OF EDUCATION.—1. Suppose the interest of the pupil be aroused by considerations extraneous to the subject itself, is it strengthening to the intellect? Why?

2. If drawing is taught in the schools, and as a result the children can readily and accurately represent common objects on paper, what should you consider the educational value of such training?

3. What are the objects to be aimed at in teaching writing in the public schools?

4. What value do you attach to map drawing in teaching geography, and for what reason?

5. What is the philosophy of reviews?

6. Point out some of the great moral lessons that may be drawn from the study of United States history.

PHYSIOLOGY.—1. What do you understand by contractility of muscles? To what extent is this property of muscles under the control of the will?

2. What are the physiological uses of tears? How is the amount regulated to the needs?

3. Show how the ear is adapted to conduct the sound vibrations to the brain.

4. Name and describe the various steps in the conversion of food into tissue.
5. What are the functions of the skin? How does an interruption of these affect health? Specify in each case, so far as may be.
6. Discuss differences of structure between an artery and a vein, showing what adaptation each has to its special function in the circulation of the blood.
7. Give treatment for some one of the following: Burns, sprains, cuts.
8. What is the normal temperature? How maintained?
9. Describe the structure of the sympathetic nervous system, and state its functions.
10. What are the physiological reasons for adapting the height of desks to the size of children?

HISTORY.—1. Mention five prominent naval commanders, and tell in what war each served.

2. With the settlement of what colonies or states were the following respectively connected: Daniel Boone, James Oglethorpe, John Sevier, Sam. Houston, Francis Vigo?

3. Give a brief account of the principles, career and fate of the Whig party.

4. Give a short account of the work of the United States Constitutional Convention.

5. With whose administration is the Sub-Treasury Bill connected? How and why?

6. What, in brief, was the nature of the difficulties in Kansas shortly before the war of 1861?

7. Give the date, origin, and effect of the Alien and Sedition Laws.

8. What is the constitutional provision on the subject of exports, and what is the ground for this?

9. Give date, author and occasion of the following expressions:

“Millions for defense, but not one dollar for tribute.”

“Give me liberty, or give me death.”

“He touched the dead corpse of the public credit, and it sprung upon its feet.” (Any seven.)

GRAMMAR.—1. Copy the following extract, making all needed changes in punctuation and the use of capitals:

“Early one morning they came to the estate of a wealthy farmer they found him standing before the stable; and heard as they drew near that he was scolding one of his men because he had left the ropes, with which they tied their horses in the rain all night, instead of putting them away in a dry place. Ah! We shall get very little here said one to the other that man is very close we will try at least said another. And they approached.” 15

2. Define the following words: *Attitude*, *ecstasy*, *fallacy*, *garrison*, and *martyrdom*. Write a simple sentence containing *attitude*; a complex sentence containing *fallacy*; and a compound sentence containing *martyrdom*. 15

3. Write sentences containing respectively an example of—

a. An infinitive as the subject of a verb.

- b.* A sentence as the subject of a verb.
- c.* A sentence as the object of a verb.
- d.* A noun in apposition.
- e.* The nominative independent with a participle. 15
4. Write the possessive singular and plural of *penny, deer, book case, mother-in-law, ashes*. Give the singular or plural that will correspond with *parenthesis, media, phenomenon, vertebra, genus*. 10
5. Explain and illustrate five uses of *what*.
6. *Feeling very much discouraged, he speedily finished writing.* Parse the words in italics. 10
7. Analyze the foregoing sentence. 15
8. Correct, if wrong, giving reasons:—
 - a.* Who do you think he is?
 - b.* Such expressions sound harshly.
 - c.* I fear we will have rain.
 - d.* He married a most beautiful Jew.
 - e.* Between you and me I believe the man is insane. 10

GEOGRAPHY.—1. What are the leading causes of the variation in heat at a given locality during the year?

2. Why is it warmer toward the equator and colder toward the poles?
3. Why are plateaus usually dry?
4. Compare and contrast the three southern peninsulas of Europe and those of Asia.
5. Name the chief products of Norway and Sweden.
6. Describe the plateau of Iran.
7. Contrast the interior structure of Africa with that of North America.
8. Describe the peninsula of Arabia.
9. Of what importance is the study of relief forms?
10. Describe Indiana briefly as to area, surface, products, population.

READING.—BEFORE DEATH.

How much would I care for it, could I know,
 That when I am under the grass or snow,
 The revealed garment of life's brief day
 Folded and quietly laid away;
 The spirit let loose from mortal bars
 And somewhere away among the stars,
 How much do you think it would matter then
 What praise was lavished upon me when,
 Whatever might be its stint or store,
 It neither could help nor harm me more?

 If midst of my toil they had but thought
 To stretch a finger, I would have caught
 Gladly such aid to bear me through
 Some bitter duty I had to do;

And when it was done, had I but heard
 One breath of applause, one cheering word—
 One cry of "Courage!" amid the strife,
 So weighted for me with death or life—
 How would it have nerved my soul to strain
 Through the whirl of the coming surge again!

What use for the rope if it be not flung
 Till the swimmer's grasp to the rock has clung?
 What help in a comrade's bugle blast
 When the pearl of Alpine's heights is past?
 What need that the spurring pæan roll
 When the runner is safe beyond the goal?
 What worth is eulogy's blandest breath
 When whispered in ears that are hushed in death?
 No! no! If you have but a word of cheer
 Speak it while I am alive to hear!

1. Write ten questions such as you would give a pupil in order to bring out the thought.
2. Read a selection to be marked by the superintendents.

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. What is meant by life's raveled garment?

2. How is life like a day?

3. Who is meant in first line of second stanza by *they*.

4. What is the effect of a word of cheer to the toiling or discouraged one?

5. Did you ever feel the need of encouragement?

6. What is meant in the last line of second stanza?

7. What is meant by the swimmer, the traveler and the runner in the third?

8. Define pæan.

9. What lessons may we learn from these beautiful verses?

10. Shall we not heed the lesson of this poem?

ARITHMETIC.—1. Any multiple of 81 is also a multiple of 9; hence the 9 may be omitted, and as 20 and 81 are prime to each other $20 \times 81 = 1620 =$ L. C. M.

$$2. 36\frac{5}{9} \div 24 = 1\frac{1}{2}\frac{1}{6}.$$

$$3. \frac{7}{16} \times 320 = 140 \text{ rd.}$$

$$\frac{8}{21} \times 40 = 15\frac{5}{21} \text{ rd.}, \frac{5}{21} \times 16\frac{1}{2} = 3\frac{1}{4} \text{ ft.}, \frac{1}{4} \times 12 = 11\frac{1}{2} \text{ in.}, \therefore \frac{8}{21} \text{ fur.} = 15 \text{ rd.}, 3 \text{ ft.}, 11\frac{1}{2} \text{ in.}$$

$$\frac{5}{8} \times 16\frac{1}{2} = 13\frac{1}{4} \text{ ft.}, \frac{3}{4} \times 12 = 9 \text{ in.}$$

$$\therefore \frac{5}{8} \text{ rd.} = 13 \text{ ft } 9 \text{ in.}$$

$$4. 1.01 \times 10. = 10.1$$

$$.00404 \div 100 = .0000404$$

$$.0025$$

$$\text{Sum} = 10.1025404.$$

5. Take $\frac{1}{2}$ the months as cents = .135
 take $\frac{1}{4}$ the days as mills = .0034
 Int. of \$1 at 6% = .1384
 add $\frac{1}{4}$ of itself = .023 $\frac{1}{4}$
 Int. at 7% = .161 $\frac{7}{8}$.

6. In one year it will gain \$5 60, \$14.50 ÷ \$5 60 = 2.5893 yr. or 2 yr. 7 mon. 2 da.

7. \$1 at 8% in 2 yr. will gain .16 int. It will take as many dollars to gain \$490 as 16¢ is contained in \$490 which is 3062.50 . ∴ \$3062.50 is the required principal.

8. \$1.50 ÷ 1.21 = \$1.24 nearly.

9. 40 / 3.14159265 = 125.663706 rd. = circumference.

125 663706 / 10 = 7.85398 A.

160

PHYSIOLOGY.—1. The power which muscles have of shortening their length, by the contraction of their fibres. In the voluntary muscles it is under the control of the will, but in the muscles of the vital organs such as the heart, stomach, intestines, etc., it is not.

2. To lubricate and wash the eyes. By the muscles and nerves controlling the lachrymal glands.

3. The external ear catches the vibrations of sound and directs them upon the tympanum. The vibrations of this membrane are carried by means of a chain of small bones to the internal ear where they are received by the auditory nerve and carried to the brain.

5. It forms the covering of the body, protects the nerves, prevents absorption of poisonous substances, prevents excessive perspiration, and is the means of excretion of much worn out matter. If perspiration ceases, fever ensues. If excretion stops the waste matter is taken up and carried to the lungs or some other organ producing disease.

9. The sympathetic system is a series of ganglia on each side of the spinal column connected by nerve fibers with each other and with the spinal nerves and with the spinal cord. It controls the action of the vital organs, the circulation of the blood and the action of the glands.

10. To prevent permanent bending of the bones, and to secure full, free and easy action of the vital organs, as well as to prevent weariness and uneasiness of the pupils.

GEOGRAPHY.—1. The attitude of the sun; the elevation of the place; the direction of the prevailing winds; nearness of mountains or large bodies of water.

2. The sun's rays are more nearly perpendicular as we approach the equator, and more oblique as we approach the poles.

3. Owing to their elevation the atmosphere is cooler, and therefore capable of containing less moisture. Again, they are generally surrounded by mountains which abstract the moisture from the winds which pass over them.

4. The southern peninsulas of Europe are Spain and Portugal, Italy and

Greece. They are protected on the north by mountain ranges trending east and west. They project into the Mediterranean sea, and owing to these facts, and their nearness to the Great Sahara have a delightful semi-tropical climate. The peninsulas of Asia are Arabia Hindostan and Farther India. They too are protected on the north by mountain chains, and project into the Indian Ocean. They lie farther south than the peninsulas of Europe and have a tropical climate, and unlike them have frequent and violent storms. With the exception of Arabia they are extremely fertile.

9. It gives an idea of the relative elevation of different localities, gives the idea of mountains, hills, valleys, plateaus, etc., and explains the cause and rapidity of the rivers.

10. It contains about 34,000 square miles, and in size ranks as the thirty-sixth state in the Union. Its surface is generally a plain, sloping gently toward west and southwest. Its lowest point is in the extreme southwest where the surface is only 300 feet above sea level. It has a great variety of agricultural and mineral products, chief of which are corn, wheat, hay, oats, hogs, horses, coal, iron, fire-clay, coal-oil, gas and stone. The population is nearly three millions.

GRAMMAR.—2. *Attitude*, posture or position.

Ecstasy (and not *ecstasy*), a state of overwhelming joy, sorrow or excitement; frenzy.

Fallacy, deception, false reasoning.

Garrison, a body of troops stationed at a fort or town for its defense.

Martyrdom, the suffering of death for one's opinions.

He stood in the attitude of wonder.

I showed him in what the fallacy of his argument consisted.

They suffered martyrdom for their religious belief, and their death was mourned by the world.

5. (1) It is a relative pronoun; as, "This is what I wanted."

(2) An interrogative pronoun; as, "What does he want?"

(3) An interrogative adjective pronoun; as, "What man but enters, dies."

(4) An adjective; as, "What a strange run of luck he has had!"

(5) An interjection; as, "What! Is he dead?"

6. *Feeling* is a present, active participle used absolutely.

Discouraged is an adjective after the participle *feeling*, and relates to *he*.

Writing is a participial noun, objective case after the verb finished.

7-8. (a) Correct complex sentence, *you do think* is the principal clause, *he is who*, the subordinate. (b) Such expressions sound *harsh*. *Harsh* must be an adjective to modify expressions. A simple sentence. (c) I fear we *shall* have rain. *Will* should be *shall* to denote simple futurity. A complex sentence. I fear is the principal clause, (that) we shall have rain is the subordinate. (d) He married a most beautiful *Jewess*. *Jew* masc, should be *Jewess*, feminine. A simple sentence. (e) Correct. A complex sentence. Between you and me I believe, is the leading clause, (that) the man is insane is the subordinate.

- HISTORY.—1. Capt. Paul Jones, war of 1812.
 Oliver H. Perry, war of 1812.
 Admiral Farragut, war of the Rebellion.
 Admiral Porter, war of the Rebellion.
 Captain Winslow, war of the Rebellion.
2. Daniel Boone; Kentucky.
 James Oglethorpe; Georgia.
 John Sevier; Tennessee.
 Sam Houston; Texas.
 Francis Vigo; Indiana.

3. During Jackson's administration his opponents, under the leadership of Clay and Webster, organized the Whig party. It was opposed to the extension of slavery, under the doctrine of State Rights, and in favor of a protective tariff, free speech, and a strong central government. It elected Harrison president in 1840, its candidate, Henry Clay, was beaten in 1844, and it elected General Taylor in 1848. General Scott, the Whig candidate in 1852, was defeated. In 1856 the Whig party was merged into the Free Soil party, which in 1860 took the name Republican party.

4. The convention met in Philadelphia on the second Monday in May, 1787. It did not organize until the 25th, when General Washington was chosen its president. There being so few delegates present it adjourned from day to day until the 28th. The convention sat with closed doors until final adjournment, Sept. 17, when a draft of the present constitution was reported. The original intention of the convention was to revise the Articles of Confederation, but they were found so unsatisfactory that it was decided to adopt a new constitution. There was great diversity of opinion among the delegates on many matters, and considerable jealousy among the colonies, and often the result of their deliberations was a compromise measure.

5. With Van Buren's administration, owing to Jackson's veto of the United States bank, and his Specie Circular, great financial distress prevailed. The president proposed to Congress a bill to establish an independent treasury, into which, it was argued, the surplus money of the country would drift, and extravagant speculation would be prevented.

6. The subject of slavery was agitating the country, and Kansas was soon to be admitted as a state, and by the terms of the Kansas-Nebraska Bill it was to be free or slave, as the people themselves should determine. Those favoring slavery in the adjoining states attempted to colonize the territory with pro-slavery settlers, and to prevent immigration from the free states. Thus the whole state became a battle-field for the contending parties, and this is sometimes called the Border Ruffian War.

7. Owing to the fact that many who had been expelled from their own country for crimes came to America and abused their freedom here by misrepresenting and embarrassing the government, Congress during John Adam's term, passed an Alien Law, empowering the president to send out of the country any dangerous alien, and lengthening the time necessary for becoming citizens to

fourteen years. It was followed by a Sedition Law which made it a crime to "write, print, utter or publish any false, scandalous or malicious statement," against the president or Congress.

8. "No tax or duty shall be laid on articles exported from any state." The intention of this prohibition is to prevent taxing the interests of any state to its detriment, and giving undue advantage to others.

9. (a) In 1797, during the trouble with France, special envoys were sent to reopen communication with that government. They were refused recognition unless they would pledge the payment of a large sum of money. One of them, Charles Cotesworth Pinckney, replied: "Millions for defense, but not one cent for tribute."

(b) In March, 1775, in a convention at Richmond, Va., Patrick Henry, in an eloquent and impassioned address, urging the colonists to armed resistance, used the words: "Give me liberty or give me death."

(c) In pronouncing a eulogy on Alexander Hamilton, Daniel Webster used the words: "He touched the dead corpse of public credit and it sprung upon its feet."

SCIENCE OF EDUCATION.—I. Yes. Anything that excites greater interest spurs the pupil to greater effort, and tends to strengthening the mind.

2. The hand can draw only what the mind can conceive. Ability to draw well argues mental strength and development, and anything that strengthens and develops the mind must be of great value.

3. To have the pupils acquire the ability to write a neat and legible hand. To write with ease, accuracy and rapidity.

4. It fixes in the mind the ideas of form, size, relation and position of objects, and is therefore of great value.

5. We learn to do anything correctly and well by frequent repetition. Reviews are necessary to thoroughly understand a subject. A pupil sees difficult things more clearly when going over a subject the second or third time.

6. The value of general education and intelligence. The value of free institutions, and the wickedness of oppression and slavery. That righteousness exalteth a nation, and sin is a reproach to any people. That the only safeguard of a free government is in the education of the people.

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

Q U E R I E S .

232. What would be the diameter of the earth if it were a perfect globe?

C.

233. If a sun-spot cross the sun's disk in $14\frac{1}{2}$ days, what is the time of his sidereal revolution?

234. Who was called the light of mankind? CHAS. E. COOPER.

235. How can a State be unrepresented in the Senate?

FRANCIS GARRISON.

236. A and B together own a farm in rectangular shape, 71 rds by 23 rds, and the diagonal is their dividing line. A proposes to give B *two* acres for every *one* he receives if he will consent to change their dividing line so as to run parallel with the longer side of the rectangle; where must the line be?

WILL KIRKPATRICK.

227. Give a logical definition of a compound sentence. Illustrate. C. A.

228. Find the radius of the longest circle that can be drawn in a quadrant of a circle of radius 10. C.

ANSWERS.

217. Assume an octagon inscribed in a circle whose radius is 2 rds. By means of rightangled. triangles, its side is easily found to be $2\sqrt{2} - \sqrt{2}$ and its area $8\sqrt{2}$. Then $8\sqrt{2} : 320 :: 4(2 - \sqrt{2}) : 2^2$

$$\therefore X^2 = 160(\sqrt{2} - 1)$$

$$X = 8.1408 \text{ rds.}$$

ED.

218. Gun is in the objective case subject to be fired. To be fired has the construction of a noun, the object of commanded. JAMES H. HOOD.

219. The Code in Indiana includes both statute law and common law, while the statutes consist of the laws passed by the legislature. W. V. GATES.

220. Symonds D'Ewes.

JAS. F. HOOD.

221. In 60 minutes the train goes $60(\frac{1}{2})$ or $26\frac{3}{4}$ times as many spaces as miles; hence one mile equals $26\frac{3}{4}$ spaces, and one space 12 rds.

P. A. YODER.

222. In 1777 Washington endeavored to destroy the British shipping in the Delaware by setting afloat torpedoes in the form of kegs. He hoped the tide and current would carry them against the vessels; but the British discovered them and opened fire on them. Hence the battle of the Kegs.

D. A. ROTHROCK.

223. Ben Wade, of Ohio; he being president *pro tem.* of the Senate at the time.

LIZZIE JOHANTGEN.

224. Area of square = 6400 sq. rd.

$$2\pi r = 320$$

$$\pi r = 160$$

$$r = \frac{160}{\pi}$$

$$\pi r^2 = \frac{25600}{\pi} = 8148.733 \text{ sq. rd.}$$

The area of circle, which is 1748.733 sq. rd. more than the square. ED.

225. The author was invited by a friend to take a social glass, but refused, saying, "water is good enough for me. He then went and wrote the Old Oaken Bucket.

D. A. ROTHROCK.

226. The area grazed over will be a semi-circle and two areas bounded by the circumference, the rope and an involute of the circle. These two areas are each equal to r^2 . Hence the whole will be $r^2 \frac{(3\pi + 2)}{6} = 4760.3241$ sq. ft. ED.

227. D. A. Rothrock gives the result 2.95 inches. As this is the only answer this query will be left over till next month. ED.

228. James I, of England.

J. P. STEPHENS.

229. Mē-zā-rā-bl. Accent on the third.

W. J. SPENCER.

230. No answer received.

231. Incorrect. Antonio's should be in the objective case after of. ID.

CREDITS.

W. J. Spencer, 229, 231; E. E. Carter, 231; H. F. Dilger, 231; W. V. Gates, 217, 218, 219, 224; P. A. Yoder, 217, 218, 221, 224; C. L. McNamara, 218, 224; Ean B. Heiney, 222; David Deppert, 222; H. C. Darnall, 222; H. S. Burlingame, 222, 224; Otis Rayne, 213, 223; Jas. F. Hood, 211, 212, 213, 214, 218, 219, 220, 222, 223, 224; B. L. T. 218, 224; S. C. Bowman, 223, 224; Lizzie Johantgen, 223, 224; E. S. Park, 214; J. P. Stephens, 228; L. F. Hillman, 211, 212; "Jo," 222, 224.

NOTE.—The manuscript for this column, for December JOURNAL, was lost in the mail, hence no query column appeared in that number.

MISCELLANY.

CENTERVILLE is moving on with P. J. Kuntz as director.

OWEN CO. reports a most excellent association held November 29-30. The attendance was large, and the interest unprecedented.

A SOUVENIR ALBUM containing views of Indianapolis, has been issued by Adolph Witteman, 60 Reade street, New York. It is well executed.

IN the December JOURNAL, page 772, the statement is made that "Warsaw" has just let a contract for a new high school building, etc. Marion was the place meant.

FRANKFORT.—Supt. Elmer E. Griffith has issued a Manual of his schools full and comprehensive, and in neat form. The schools are reported in good working order.

MARION CO.—The Commissioners of this city recently disallowed a claim of Supt. Flick for extra clerk hire, rendered necessary in the distribution of the new school books.

CLARK CO.—The school children of Charlestown, Clark county, will attempt to raise a sum of money sufficient to erect a monument over the grave of Jonathan Jennings, the first Governor of Indiana, whose burial place is unmarked.

GIBSON CO.—The first County Association was held in Princeton, November 29-30. In an oratorical contest Miss Dunlap won the prize for oration and Mr. Hudelson for declamation, both Princeton teachers.

GOSHEN has put out a Manual of 136 pages in very attractive form. It contains about all one needs to know about the schools, which seems to be in excellent condition under the direction of W. H. Sims.

HENDRICKS CO. is noted for its excellent associations. The attendance at its last was large, and the interest most excellent. Prof. W. J. Bryan's lecture on "A Theory of Life" was "one of the finest ever given in Danville."

DEPAUW UNIVERSITY closed its fall term December 13. Total enrollment, 760 against 660 of last year. Number in college department, 310; in freshman class, 125. There has been a general increase all around. The work proceeded quietly, pleasantly, and without interruption. The spontaneous good order was worthy of note. Everybody seemed free, happy, and in the right place at the right time.

MAYOR GRANT has reappointed Mrs. Agnew, but not Miss Dodge, to the New York Board of Education. Instead of Miss Dodge, he has appointed Mrs. Clara M. Williams. Mrs. Williams is a graduate of the Twelfth Street public school and of the Normal College. She was born in New York thirty-five years ago, and having always taken an interest in the subject, has a practical knowledge of the public-school system.

DELAWARE CO.—This is one of the best counties in the state, and Supt. J. O. Lewellen is pushing its schools to the front. He has printed a list of suggestions touching the premises and the school. When visiting a school he goes over these points, thirty-three in number, and marks all such as need attention. He then gives the teacher a copy, gives a copy to the trustee, and keeps a copy himself. He says the plan works well.

THE CENTRAL NORMAL COLLEGE is in the midst of the most prosperous term of the school for this season of the year. The teachers are making friends in their work, and leading the students over a thorough, practical course. With the present rate of increase the school is destined to be one among the largest. New apparatus and new books are constantly being added. Nothing is spared to make every department up with the times.

CLINTON CO.—Our schools are in a prosperous condition. Teachers are enthusiastic, and the attendance of pupils is good. We have about 130 subscribers to the JOURNAL, and 125 reading circle members. Our educational column in the *Crescent* is flourishing. We are thinking of starting a paper of our own. Teachers' Association is held on January 11. Profs. Parsons and Griffith will be with us. J. W. Lydy is our Superintendent.

NOBLE CO. held its institute this year at Kendallville. The attendance was good, and the interest excellent. The most of the work was done by Prof. B. A. Hinsdale, of Michigan University, and Mrs. Emma Mont. McRae, of Purdue.

The work of each was highly appreciated. W. A. Bell was present one day and made an address. The new Superintendent, J. H. Ohlwine, is making a good start. The above was accidentally omitted from last month's issue.

WASHINGTON.—The reports from the schools of this city are very flattering. With an enrollment of 1072, there were but forty-six cases of tardiness for the month ending December 6. The teachers of Washington are all enrolled as members of the Teachers' Reading Circle, and instead of harsh criticisms, that the prescribed course is too difficult, more work is done than the law requires. The High School will graduate fourteen this year. W. F. Hoffman is Superintendent.

THE WARRICK CO. Teachers' Association held its annual convention at Boonville, November 29-30. There was a full attendance, and more and better work was done than ever before. The president, M. G. Clinton, principal of Lynnville schools, well merits the unstinted praise bestowed upon him for his efforts in making the meeting the best in its history. Mrs. Lucia Julian Martin, of Indianapolis, gave an address upon the importance of voice culture. She also gave an entertainment to the delight of a large audience.

RUSH CO.—The superintendent of schools in Rush county recently presented his bill for work done under the new school-book law, but the County Commissioners were advised by their attorney not to allow it. It was held that it was not right to use the funds of the county to pay the agent of a private corporation for placing its books before the people. This is not a new point in the new school-book law, but one that has been fully argued in the cases which have appeared in at least one of the cases already tried. The principle is the same whether applied to trustee or county superintendent.

LA PORTE CO.—We had an excellent meeting of the LaPorte County Educational Club at Michigan City, Dec. 7. The "Head, Heart and Hand" idea of the new education was discussed in the morning, on the basis of papers read by Principal Boyle, of Michigan City; Mrs. Quayle, of LaPorte; and W. N. Hailman. The discussion is to be continued at our next meeting, February 1, at LaPorte. In the afternoon we had a most eloquent address by Rev. J. H. O. Smith, of Valparaiso. His subject, "A man for a' that," was handled by him in a masterly manner, and applied to the educational field.

THE NORTHERN INDIANA NORMAL AT VALPARAISO.—The Normal is pushing ahead as usual. The attendance this year is very large indeed. The new arrangement in music has proven a great success. They now have their hall completely furnished with new instruments, and have perhaps the largest musical conservatory in the West. The Scientific Class number 150; the Classic Class, 45; one-third greater than it was last year. This goes to show that more of the students remain to complete the full courses from year to year. Everybody is hard at work and happy. H. B. Brown has reason to be proud of his unprecedented success in building up the most flourishing private school in this country.

SIMON YANDES'S endowment (\$40,000) of the chair of English Language and Literature, at Wabash College, together with the endowment (\$100,000) of the same chair at Johns Hopkins University, shows the prominence the study is attaining in our higher institutions of learning. The catalogue of Wabash College shows a systematic course of three years in English, and this will no doubt be still further enlarged, thanks to Mr. Yandes. Prof. Arthur B. Milford is in charge of the department. He is a graduate with honors from Princeton College. Has spent one summer in Germany and another in England in the higher study of English. The library of the College contains 31,000 volumes, and is used as a literary laboratory for topical work.

MONROE CO.—The third annual session of the County Teachers' Association met in Bloomington, November 29-30. The programme was given by the teachers, ably assisted by Prof. J. K. Beck, of the State University. On Friday evening W. A. Bell of the SCHOOL JOURNAL lectured to a large and appreciative audience. One of the best features of the associations in this county is the exhibit of the work of both teachers and pupils. The teachers exhibit their registers, specimens of penmanship, etc., and the pupils have specimens of penmanship, map drawing, examination manuscripts, etc. Competent committees award the honors, and the names of all successful contestants are published in circulars. Supt. J. W. Craven is an active worker and is doing much good.

LAGRANGE CO. held its annual meeting November 29-30. One hundred and seventeen teachers were in attendance besides many interested visitors from all parts of the county. The session was productive of many new ideas and much social good. The teachers of this county are fast reducing the disconnected and disjointed facts of the profession to a system, and replacing the crude ideas of former days by a practical science. Psychology, moral philosophy and common sense are being used as the basis on which to build a practical teacher's experience. Steps were taken toward securing a county library for teachers. A resolution was adopted favoring the distribution of state funds on the basis of attendance instead of upon the enumeration as now. Supt. Machan is an earnest and intelligent worker.

THE PULASKI COUNTY TEACHERS' ASSOCIATION held its annual session at Winamac, November 29-30. The meeting was voted to be the best ever held in the county. The Instructors were Profs. Bassett, of DePauw, and Carpenter, of the State University. Prof. Bassett is well known in this county, and is a great favorite. His lecture on The Common Man, was delivered on Friday evening to a large and appreciative audience. This was Prof. Carpenter's first visit to this county. The association was much pleased with the work he gave them. The teachers adopted a resolution censuring Col. Francis W. Parker for his treatment of their Executive Committee. The teachers of Pulaski county are rapidly advancing in their profession. The enthusiasm and professional interest of the teachers was manifest throughout the entire session. J. H. Reddick is our worthy Superintendent.

SECRETARY.

WARREN CO. held its annual association at the usual time, November 29-30. The following extracts from a letter indicate its character: "We had an excellent meeting. Dr. D. S. Jordan gave two lectures, one on the Yellowstone Park, and the other on "The Value of Higher Education." Prof. Stanley Coulter addressed the teachers on "What is Evolution," and J. A. Zeller gave an excellent talk on "Value for Value." Papers were read by a number of our own teachers. Prizes were offered for the best exhibit of school work, one by State Superintendent La Follette, and one by the County Superintendent, which brought out an excellent display of work. An oratorical contest was held on Friday night, in which there were nine contestants in declamation and seven in oration. A gold medal was awarded for the best in each. This was the best meeting the Association ever held. Fremont Goodwin is the Superintendent.

THE STATE NORMAL SCHOOL.—The annual reports concerning the affairs of the State Normal School, at Terre Haute, have been submitted to Governor Hovey. They show the work in the school to be in a very satisfactory condition, while the number of students is constantly increasing. The new building, replacing that destroyed by fire, has been occupied since the opening of the school year in September. It is much better adapted to the purposes of the school than the old one. The contracts for the new structure amounted to \$124,055.70. The president of the faculty, Prof. W. W. Parsons, reports that since the organization of the school in 1870 students have registered from the various counties in the State to the number of 5,762. During the past year 159 graduates of commissioned high-schools attended the school. The discipline has been intelligently conceived and administered. The report of the board of visitors was a very satisfactory one, and highly complimentary to the officials of the school. The report of the secretary of the board of trustees showed the receipts during the past year to have been \$31,634.82, and the expenditures \$23,272.25, leaving a balance of \$8,362.57.

PERSONAL.

Elton Broughton rules at Brimfield.

J. B. Bonnell directs the work at Rome City.

W. F. Barr is principal of the schools at Milroy.

W. G. Clinton is principal of the Lynville schools.

S. E. Raines is the high school principal at Sullivan.

Geo. P. Fleisher is principal of the high school at Kendallville.

W. R. Nesbit, a State Normalite, still holds the reins at Sullivan.

P. D. Creager continues to superintend with success at Kendallville.

A. E. Rogers, formerly Supt. of Hendricks Co., is now in charge at Clayton.

A. B. Stevens, for many years at Angola, is now in charge of the schools at Stryker, Ohio.

Prof. R. G. Boone, of the State University, can not attend our State Association this year, as he can make \$120 by talking five days to some Pennsylvania teachers.

W. H. Caulkins, of Tippecanoe county, the oldest and one of the best superintendents in the state, has been appointed Deputy Revenue Collector, at a salary of \$1400.

E. W. Bohannon, a State Normal graduate, has charge of the Plainfield schools. He is carrying on some special work and hopes to graduate from the State University next June.

Orlando E. Arbuckle and Orin Staley were not Posey county teachers as stated in last month's issue. At the time of their trouble the first named was teaching in Marion county and the other in Hancock county.

W. N. Hailman, Supt. of the La Porte schools, will spend his holiday vacation in doing a week's work in Boston, and in making an address before the New Jersey State Association. He will be missed at our own State Asso.

Mrs. Lucia Julian Martin, Principal of the Indianapolis Training School of Expression, has been doing very acceptable work this fall before teachers' institutes, teachers' associations, and in school lecture courses, in various parts of the state.

Edward Barrett still continues in charge at Belleville. A new school building has just been completed and is appreciated. Mr. Barrett gave a very interesting sketch of the "Old Academy" on the occasion of moving "out of the old house into the new."

Hillary A. Gobin, D. D., has been elected Dean of the School of Theology at De Pauw. He graduated from "Old Asbury" in 1870, was afterwards a worthy Professor in the same school, and for the last two years has been President of Baker University, Kansas.

Andrew M. Sweeney, for many years superintendent of Dubois county, has formed a law partnership with J. L. Bretz, and will practice at the old stand, Jasper, Ind. Mr. Sweeney had ability to make a first-class county superintendent, and certainly he ought to be able to make a first-class lawyer.

J. B. Moyer, in attending a teachers' examination at South Bend, secured a first grade or three years' license. Calvin Moon is the county superintendent, and it seems the "Moon" must have shone very brightly that day. Manuscripts which call for a first grade license after being exposed to Mr. "Moon's" scorching rays, indicate good scholarship.—*Review*.

John Hancock, who is now filling an unexpired term in the office of State School Commissioner of Ohio, will be his own successor, having beaten his competitor in the late state election in Ohio. Dr. Hancock is well known to many Indiana teachers who will be glad to hear of his success. He is recognized as one of the leading educators of Ohio and of the country.

Ambrose Blunt, Supt. of the schools at Ligonier, and one of the most popular and well known teachers in Northern Indiana, died suddenly of heart trouble December 3. The attack occurred while he was at the school building in the

discharge of his duties in the afternoon, and the end came the same evening. He will be missed by his many warm friends among the teachers.

Mrs. R. M. Johnson, of Washington, D. C., was recently elected by the Board of Trustees of De Pauw University, as Instructor in the Normal Practice School. She is a lady of culture and ability, and has already made a flattering record in the art of teaching. She has rare skill combined with insight into principles of education. Therefore her art is not the art of mechanism, but the art of living principle. For this reason, she is especially fitted to take charge of the practice work of teaching in a normal school. The Normal Faculty are congratulating themselves on the good fortune of securing her services. She enters upon duty at the opening of next year.

J. P. D. John, D. D., has been elected President of De Pauw University. In June of 1888 he was elected Vice-President of the university, and since the resignation of Dr. Martin at the close of last school year he has been acting-president, in which position he has been giving universal satisfaction.

Dr. John was born in Brookville, June, 1843, and is, therefore, in the prime of physical and intellectual manhood. He was educated at the Brookville College, and was for several years its president. After that he spent two years in France and Germany, studying at their universities. On his return he was elected president of Moore's Hill College, serving several years with marked success. In June, 1882, he was elected professor of Hebrew and adjunct professor of Latin in Asbury (now De Pauw) University, and in October, the same year, he was transferred to the chair of Applied Mathematics and Astronomy, for which his training and tastes most eminently fitted him. Under his supervision the McKim Observatory was built, and his observations from it have largely contributed to the latest advancement of that science. The degree of D. D. was conferred upon him by Asbury University in 1882.

Dr. John has been so long and so well known in Indiana in the several departments of educational work that he will at once receive the hearty indorsement of every friend of De Pauw, and the sympathy and highest regard of the teaching fraternity throughout the state. The Journal extends to Dr. John its warmest congratulations upon this worthy promotion.

BOOK TABLE.

OUR LITTLE ONES, by the Russell Publishing Co., Boston, Mass., is the best paper printed for the "little ones." It is a thing of beauty. Price, \$1.50.

THE Russian general who will contribute an article on "The Russian Army" to Harper's Magazine for January, considers the Russian staff as fully on a par with the renowned German staff. In the "Editor's Drawer" of Harper's Magazine for January, Charles Dudley Warner will discuss the reasonableness of the chewing-gum habit.

LITTELL'S LIVING AGE is just entering upon its *forty-seventh* year. It is a weekly *selective* magazine, and gives over 3,000 double column pages of reading matter each year. Its articles are selected from the leading magazines of the Old World, and so gives only the cream of current foreign literature. For full information see advertisement in December JOURNAL.

TREASURE-TROVE magazine begins the holiday season with some stirring stories of adventure and exploration, illustrated in the finest manner in the December number. These spirited stories will be continued; besides these features which make the magazine so valuable to teachers. "American Heroes," "American Artists," glimpses of "Other Lands," and "Foreign Ways," glimpses of life, glimpses of science, and of language, are all "educative" in the most delightful way. Published by E. L. Kellogg & Co., New York City.

THE STORY OF BOSTON: As told by Arthur Gilman, deals with the doings of a community of earnest men who for eight score years had no considerable interests except those connected with politics and religion. Boston was for so long a time New England, that to know the history of this city is to be acquainted with the main springs of the struggle which for a century and a half existed between a handful of patriots and a powerful monarchy. Mr Gilman has endeavored in these pages to bring to light the real lives of these patriots, and those who labored and suffered with them. This book is one of a series, entitled "Great Cities of the Republic," published by the enterprising Boston firm of G. P. Putnam's Sons.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

CATARRH CURED—A clergyman, after years of suffering from that loathsome disease Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren Street, New York, will receive the recipe free. 11-7t

TRAINING SCHOOL OF EXPRESSION—*When Block, Indianapolis.*—The course includes Elocution, Physical and Vocal Culture, English Literature, Reading and Dramatic Art. Pupils may enter any time.

LUCIA JULIAN MARTIN, Principal.

1-1t

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page.

1-tf

CATARRH—Catarrhal Deafness, Hay Fever.

A NEW HOME TREATMENT.—Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King St., Toronto, Canada. Sufferers from Catarrhal troubles should carefully read the above.—*Christian Advocate.*

1-1y

THE BIG FOUR on all its lines will carry passengers at reduced rates during the holiday season. *One fare and a third* for a round trip ticket. This is a good chance to visit friends and have a good time at little cost. Apply to local agents or J. H. MARTIN, Ass't. Pass. Agent, Indianapolis. I-11

SCHOOL TEACHERS, have you been paying a big price for rewards? Send 12 cents for samples of twelve large handsome cards. Would cost 25 cents at retail. The amount paid for samples will be deducted from first order amounting to 50 cents or over. Townsend & Royer, 175 S. Howard St., Akron, O. I-11

Look here, Friend, Are you Sick?—Do you suffer from Dyspepsia, Indigestion, Sour Stomach, Liver Complaint, Nervousness, Lost Appetite, Biliousness, Exhaustion or Tired Feeling, Pains in Chest or Lungs, Dry Cough, Night sweats or any form of Consumption? If so, send to Prof. Hart, 88 Warren St., New York, who will send you free, by mail, a bottle of *Flaraplexion*, which is a sure cure. Send to-day. I-11

THE Manager of the School and College Bureau, Elmhurst (Chicago), Ill., is daily at his post of duty, daily recommending teachers for good places, daily hearing of good results, daily sending out fresh letters of inquiry to schools and colleges. If you expect to locate elsewhere, either now or next September, the present is a good time to open correspondence with him. Address,

C. J. ALBERT, Manager,
ELMHURST, ILL.

TO FLORIDA.—The Pennsylvania Line (J., M. & I. R. R.), with its train leaving Indianapolis at 7:35 A. M., makes direct connection at Louisville with the L. & N. fast train which arrives at Jacksonville, Fla., 1:55 P. M. the following day. Pullman sleeping-cars are run through from Louisville to Jacksonville. Therefore, the only change of cars necessary is at Louisville, and that is made without hardship or annoyance. For tickets, and for further information, call at Pennsylvania ticket-office, corner Washington and Illinois streets, or ticket-office Union Station, or address
H. R. DERING,

I-11 Ass't. Gen. Pass. Agent Penn. Lines, Indianapolis.

A NEW METHOD OF TREATING DISEASE.—Hospital Remedies.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, *has ruined more stomachs than alcohol*. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Co., Toronto, Canada, sole proprietors. I-11

10,000

Copies of MERRY MELODIES Sold in the last 70 days!

A GRAND MUSIC BOOK, written expressly for Day Schools and Teachers' Institutes. The music is cheerful and ringing. It will fill every school with enthusiasm. *Will not every teacher in Indiana try it?* The enlarged edition contains 48 pages. Price in manilla, 15c per copy, or \$1.65 per dozen, postpaid; in boards, 20c per copy, or \$2.14 per doz. Address all orders to
S. C. HANSON, Music Publisher, Williamsport, Ind.

I-11

TEACHERS WANTED.

We have been asked by the Authorities to recommend teachers for the following places:—

PUBLIC SCHOOLS.

POSITION.	STATE.	SALARY.	WHEN WANTED.
Superintendent	Penn.....	\$1,200.....	Spring.
High School Principal.....	Ind.....	750.....	January.
Public School Principal.....	Neb.....	1,000.....	January.
Superintendent	Mich.....	1,200.....	Spring.
Public School Principal.....	Ills.....	1,000.....	January.
High School Principal.....	Neb.....	800.....	Soon.
Town Principal.....	Penn.....	50.....	Now.
Public School Principal.....	Neb.....	550.....	Now.
High School Principal.....	Ohio.....	75.....	Spring.
High School Assistant.....	Mich.....	600.....	January.
" " "	Wis.....	500.....	January.
" " "	Kans.....	75.....	February.
" " "	Iowa.....	450.....	January.
" " "	Iowa.....	600.....	January.
" " "	Mich.....	50.....	January.
" " "	Ills.....	50.....	January.
Grammar Grade	Wis. (2).....	\$35 and \$40.....	January.
" "	Ohio.....	50.....	January.
" "	Mont.....	60.....	April.
Intermediate.....	Iowa.....	35.....	Now.
Primary	Minn.....	50.....	Soon.
"	Dak.....	40.....	January.
"	Wis.....	35.....	January.

PRIVATE SCHOOLS.

Assistant (man)	Ills.....	50 & home ..	At once.
Principal.....	Iowa.....	.....	At once.
Latin.....	Ala.....	40 & home ..	At once.
Sciences (College).....	Ky.....	1,000.....	January.
Principal Academy.....	Mo.....	.....	At once.
Lady Assistant.....	Ky.....	600.....	January.
Agricultural College.....	.....	2,500(?).....	Jan. or Feb.
Sciences (Academy).....	Minn.....	800.....	January.
Lady Assistant.....	Ky.....	35 & home ..	February.
" "	Minn.....	35 & home ..	February.
Training Teacher.....	New Eng. States	800.....	Soon.
Assistant Superintendent.....	Ky.....	40.....	Soon.
Shorthand	Kans.....	.....	January.
Music (University)	Ohio.....	Good	Soon.
Music (Academy)	Ills.....	Small	Soon.
Partner (College).....	Kans.....	.....	Soon.
Commercial Teacher.....	Mich.....	1,900.....	Soon.
Music	Ala.....	50.....	January.
Primary	Chicago.....	600.....	January.
Del Sarte System.....	Chicago.....	400.....	Soon.

New places are coming in every day. The large Manual of the Association and Circulars are sent free. We are always glad to have teachers consult us freely as to their wants, and the chances of their securing better salaries, or more congenial surroundings. All communications are held as strictly confidential.

Address, **TEACHERS CO-OPERATIVE ASSOCIATION,**
ORVILLE BREWER, Manager. 70 & 72 Dearborn St., Chicago. 1-1f

INDIANA SCHOOL * JOURNAL.

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No. 2.

REPORT OF THE INDIANA STATE TEACHERS' ASSOCIATION.

PLYMOUTH CHURCH, INDIANAPOLIS, Dec. 25, 1889.

The Indiana State Teachers' Association met in its XXXVTH annual session and was called to order by the retiring president, L. H. Jones, Superintendent Indianapolis schools.

Mr. Jones said: ' One year ago it was my privilege to preside over your deliberations. The presidency of a body like this is neither to be sought nor declined. It will continue to be an honorable position so long as the character and the work of this body continue to make it so. Yet there are some reforms that this Association in the interest of its own prosperity should undertake. One of these is clearly indicated on the program of this meeting. I refer to the recognition on the part of this body of the Sections of the Association as organic parts of the whole, with a time and place for the exercise of each. Dr. Harris has said that no educational man can afford to hold one phase of educational work so closely in front of him as to obscure his view of the whole educational field. However well the sections of the Association may do their work, there is still room for a general Association of the teachers of Indiana. I think every step toward unification goes toward the prosperity and progress of the Indiana State Teachers' Association.

I now wish to return to you my thanks for the honor conferred upon me in selecting me to be your presiding officer, and for the uniform kindness and indulgence shown me while in the chair.

It is now my privilege to introduce to you Mr. J. A. Zeller, the President-elect of the Association.

Mr. Zeller then proceeded to deliver his inaugural address, which will be printed in full in a later issue of the Journal.

Under the head of "Miscellaneous Business", Mr. Jesse L. Scott, of Hymera, and Miss Nora Hunter were appointed Assistant Enrolling Secretaries. Mr. W. E. Henry, of Peru, was appointed Asst. Recording Secretary.

The report of the Committee on Revision of the Constitution and By-Laws was then called for, but owing to the loss of a part of the minutes of the meeting of last year, the names of this committee could not be ascertained. It was thought proper that as the constitution had been repeatedly amended, and that as these amendments had been scattered throughout the minutes of preceding meetings, a committee should be appointed to collect and arrange them. After a somewhat lengthy discussion of the subject, Prof. Carhart moved that a committee of three be appointed by the Chair to gather up and report to the Association during the present session the original constitution and all the amendments that have been made from time to time, the understanding being that the constitution here reported shall be the basis of action by which the Association shall determine its constitution. It shall also be the duty of the committee to report desirable amendments to the constitution.

This motion was carried, and D. E. Hunter was appointed chairman of this committee, the others to be named to morrow morning.

On motion of Mr. Alford, the Association was authorized to instruct the Railroad Secretary to sign no certificates presented by any one except those who pay their dues in the general Association.

After the "annual address" of Mr. Hunter on the subject of "Enrollment", the Association adjourned.

THURSDAY MORNING, December 26.

The exercises were opened with Scripture reading and prayer by Rev. S. Edwards.

The Committee on Compilation and Revision of the Constitution was then announced: D. E. Hunter, chairman; Joseph Carhart, Samuel E. Harwood.

David S. Jordan, President of the State University, then addressed the Association on the subject of

SCIENCE IN THE HIGH SCHOOL.

The following is an abstract of Dr. Jordan's paper:—

The purpose of science teaching as a part of general education is this: To train the judgment through its exercise on first hand knowledge. The student of science is taught to know what he knows, and to distinguish it from what he merely remembers or imagines. Our contact with the universe is expressed in what we call science.

I am sure that the time will come when the study of the subjects of nature will be as much a matter of course in our schools as the study of numbers. But the science-work of the next century will not be the work we are now doing. The conventional fourteen weeks in science gives no contact with nature, no training, no information worth having, only a distaste for that class of smattering information which is supposed to be science. There is a charm in real knowledge which every student knows. The magnet attracts iron, to be sure, to the child who has learned the fact from a book, but the magnetism is real only to the one who has himself felt it pull. It is more than this; it is enchanting to the one who has discovered the fact for himself. To read a statement of fact gives knowledge, more or less complete as the book is accurate or the memory retentive; to verify the fact gives training, to discover it gives inspiration. Training and inspiration, not the facts themselves, are the justification of science-teaching.

But in very few of our high schools has the instruction in Zoology any real value, and I take Zoology as an illustration simply because it is the science nearest to my hand. For failure to teach it properly there are several causes, and some of these are beyond the control of the teachers. The high school is not equipped as a general school of science. It can do some things well, but it will fail if it tries to do too much. It is to be regretted that the present tendency in our high schools is to do many things poorly, rather than a few things well. The high school ought not to attempt to give a general view of science. It is better to select two or three of the number—a physical and a biological science perhaps—and to spend the available time on them. The choice should depend mainly on the skill or the interest of the teacher. Teach those sciences that you can teach best. A great deal will depend, not on the kind of books that you use, but on the kind that you avoid. Nearly all the text-books in Zoology, for example, are simply pernicious. In the words of Agassiz to the publisher, "It is not the school books we want, but students. The book of Nature is always open." And again, "If we study Nature in books, when we go out of doors, we can not find her."

The essential of method is that we allow nothing to come between the student and the object which he studies. What you want is to have him examine for himself and to draw his own conclusions from what he himself has seen. You do not wish to have your students tell you from memory the characters of the Ichthyopsida as distinguished from the Sauropsida, but you would know what they have learned from their own questionings of the frog or the turtle. It is not necessary to teach them that Vertebrates are divided into Mammals, Birds, Reptiles, Batrachians

and Fishes. It is not true, in the first place, and if it were, it does not concern them. Stick to your frog. You are studying frogs, and he will teach you more of the science of animals than all the memorized classifications that you can bracket out on a hundred yards of blackboard.

The prime defect in our schools is not after all that the teachers do not know the subjects they teach, but that too many of them lack any clear conception of what they are trying to do. The book is placed in their hands by the school board, and they teach by the book. If the book came to them wrong side up, their teaching would be forever inverted. Yet nothing is easier than to do fairly good teaching without special appliances or special knowledge even. Bring out your specimens, and set them before the boys and girls. They will do the work, and do it eagerly. There is no lack of materials. Our New World was and is the El Dorado of the European naturalists. Le Sueur and Owen and Say found work for a lifetime in the woods and streams of New Harmony. As Agassiz has said, "Take your tests from the brooks, not from the book-sellers. It is better to have a few forms well known than to teach a little about many hundred species. * * * This method of teaching children is so natural, so suggestive, so true. That is the charm of teaching from nature. No one can warp her to suit his own purposes. She brings us back to absolute truth as often as we wander."

Dr. Chas. R. Dryer, of Ft. Wayne, who was on the program to open the discussion, was absent, and Mr. J. Spelman, of Vincennes, was called in his place. He said:

This subject is so broad, and the interests at stake so great, that it affords me no little relief to know that what I have to say does not determine the destiny of science teaching in the high schools of the State of Indiana. I agree in the main with the paper just read. It is a fact that science, as it is generally taught, is distasteful to many pupils. This is because it is not taught in the right manner. When properly taught, it appeals to the power of perception, which is a better power to appeal to than the imagination. Yesterday on my way to Indianapolis, my attention was called to some beech trees. These were something new to me. As soon as I saw the trees I noticed a characteristic by which I could distinguish them. It was growing dark, and I could not distinguish the color, but I noticed a peculiarity in the manner in which the branches subdivided. If I were to attempt to describe this to you, I should appeal to your imagination. You know the difficulty of describing such a thing, so that pupils would be able to recognize it. But if I take you to the tree, and let you observe it yourself, I would appeal to your powers of perception. You would see more than I could describe to you in a month. The way to teach science is to teach it in such a manner that it will appeal to the pupils' perception.

Another illustration: Suppose I have a piece of oak wood, nicely polished. Most of us are familiar with the grain of the oak. But if I attempt to describe the grain to some man who has never seen it so that he shall be able to recognize it, this can not be done.

Our trouble lies in two directions. Most of our teachers have learned science from the text-books, and not from nature herself. This is a difficulty we can not immediately surmount. The only remedy for that is the gradual growth of scientific knowledge among teachers. This will come about in time. I think we are progressing in the right direction towards a proper appreciation of this subject. Our other trouble lies in the fact that our school boards have not a proper appreciation of the facilities for teaching this subject. The teacher is not a teacher at all who does not take his pupils into contact with nature. We may do something in the way of teaching Botany and Zoology, but when we come to Physics and Chemistry, we must appeal to our school boards for aid. The point is to cultivate public sentiment on this question.

Dr. Jordan was asked what he would suggest as a better method of making teachers acquainted with science other than the Reading Circle plan, which he condemned. Dr. Jordan said:

I do not think any book will give teachers a knowledge of Zoology without the study of animals. There are a good many excellent books, the works of Darwin, Huxley, and others, but they do not meet what the Reading Circle wish to meet. There is only one way, and that is to require teachers to handle, dissect, and identify a certain number of animals. The information will be given by the animals themselves. It does not make a book elementary to say a very little about any one thing. If most of our popular zoologies were burned, it would have the same effect on science teaching in the West as that of scraping the barnacles off a ship's bottom has on the speed of a ship. Practical Zoology is written on the right plan, giving laboratory directions. It does not tell the student what he is to find out, but gives directions, and if the teacher will take that and one or more animals, he will find it useful. Any book you can use with the animals is a safe one; any book you can use without the animals is a dangerous book.

W. A. Bell said: There is some danger of overstating some things. I agree with Dr. Jordan in regard to methods. But it seems to me that the statement is very strong when it is said that books are worthless, and that it would be a help to burn them. It seems to me it would be equivalent to saying that the study and investigation of others were worthless. If everybody has to do the same thing and learn facts in the same way, we might as well wipe out all books. Any fact in science that has been discovered is worth writing down and preserving. How else is the world to make any progress? A great many facts we read we know as well as if we had seen them. We are not all scientists and never expect to become such, and to say that a person who is not to become a scientist is not to learn anything from others, is making it very strong. I was so unfortunate as to learn all my science from books. I did not get much, but what I did get was of some value to me. Suppose the statements in a book are correct; any one who wishes merely to know something about the science will find it worth while to read that book and get a general idea of it. It enables him to understand something when he hears a per-

son talking about science. If you can not do the one thing, it is valuable to do the other. I want to make a little plea for what other people have done, without having to go back to nature for everything.

Joseph Carhart said: This is exceedingly interesting to those who have been charged with the responsibility of arranging a reading course. It has been a very troublesome part of the work to devise something in the study of Natural History. It seems to me that Dr. Jordan fails to make a distinction between the president of the State University and the average country school teacher. Dr. Jordan will do many things in the study of science which the average country school teacher can not do. He will dissect more animals with greater skill and enthusiasm than the average country school teacher will display. Suppose you prescribe a course of science that will make it necessary for the students to dissect animals; how many do you suppose will do that work? There are persons now present who are doing the reading circle work. How many will care enough about that kind of study to do that sort of thing? It seems a little surprising to me to discover that there is no book written on science that has the endorsement of scientific men. We have asked a number of them to recommend some book that would be valuable to our members in the study of Natural Science. They say there is no such a book. This is a marvelous thing to us.

L. H. Jones said: I have been exceedingly interested in this science question. I do not feel it necessary to defend the action of the Reading Circle Board. I do not know how they could, under the difficulties mentioned by the last speaker, have done better than they have done. I wish merely to emphasize a single idea. I agree with every suggestion Dr. Jordan has made, provided he will limit the suggestions to the acquiring of the fundamental concepts by which nature and books must be interpreted. We have no expectation of making specialists of teachers. The method suggested will be the means of interpretation both of nature and by books.

Dr. Jordan said: I did not mean that we should neglect the use of books. I have spent a great deal of money on scientific books and time in trying to write them. What I refer to is the getting of these fundamental concepts. Teachers can not get them from reading books.

Mr. Blackston said: I am not in favor of doing away with books entirely. The students can learn by the examination of the animal and the description of the animal in the books.

C. A. Hargrave: The teachers of the state are too timid in the matter of studying Zoology practically. There are a great many persons who would like to study animals or other forms of life, but they are afraid some one will see them with a frog in a tin can. There are others who do not like the odor of the animal. We are too easily discouraged in the matter of dissection. We expect to amass the whole amount of knowledge to be gained by a single dissection. That can not be done. If Dr. Jordan would tell us of all the discouragements he met with in the study of fishes it might be instructive to us. If in two hours' study we

get one or two points for ourselves, we prize them more than forty facts we may gain from books. I have tried to study science by dissection and books. The books are of assistance, but I find pleasure when I find an error in a book. The pupils also enjoy detecting these errors.

E. H. Butler: There ought to be another statement or two made. It seems to me that the statement in the paper with regard to teaching science in the high school the facts will not bear out. I believe that the high school teachers of the state are recognizing the fact that it is better to do part of the work from the text books, and to use the objects. I think the use of objects is increasing. I believe that the statement that it is better to have no science than to have it as it is taught is too strong. I believe the general rule is that the high schools recognize the fact that science should be taught from the things themselves. This is the rule and not the exception.

On motion of T. G. Alford, the President was instructed to send congratulatory telegrams to all the State Associations now in session.

After a recess the Nominating Committee was appointed as follows, one from each congressional district: W. M. Wheeler, W. H. Elson, C. N. Peak, J. A. Carnegie, Miss Grace Woodburn, J. W. Denny, T. G. Alford, S. E. Raines, D. K. Goss, A. J. Dillon, P. A. Allen, Walter Palmer, Miss Emma Butler.

State Supt. La Follette was absent on account of sickness, and the paper of J. N. Study was substituted. The following is an abstract:

THE TRUE FUNCTION OF SCHOOL SUPERVISION.

School Supervision is *Official* and *Professional*. Under the former head may be classed that which is purely official in character, as the making of the necessary financial provision for the support of the school; the providing of houses, apparatus, and the other appurtenances and equipments of the school; the selection of the professional supervising force; and the prescribing of the general scope and policy of the school system. Under the head of *professional* supervision may be placed all that which has reference to the working of a school as a school, all that requires a technical training to completely fit for its performance.

The professional school supervisor is of comparatively recent origin. Mr. Philbrick says that the first permanent city superintendency was established in Providence in 1840. Professional supervision of graded schools, however, in our own state, existed years before the statute of 1873 gave it legal recognition. So also the professional county supervision of schools had existed to a limited extent under the old county examiner system before the act of 1873 established the county superintendency of schools.

Among the functions which most properly belong to the professional side of school supervision is the

Appointment of Teachers.—No school is possible without the teacher. Houses and equipments are but the tools, and without the master's hand are valueless. How shall these teachers be chosen? In many places they are chosen by the "spoils system." This is especially the case in large cities and where the schools are controlled by large boards. Some good teachers may be chosen even under the "spoils system," but that teachers of the best type will be the rule and not the exception is beyond belief. That discipline can be maintained, and proper respect for the supervising authority expected where the teacher looks to the local committeeman for appointment and continuance in place, rather than to the supervising officer, is not to be looked for while human nature is as it is. It matters little who holds the nominal appointing power, but the real appointing power should be the Superintendent of Instruction. Small school boards are preferable to large ones, as individual responsibility is greater. Perhaps the best system is the appointment made by the board, but upon the recommendation of the superintendent. This gives to the superintendent the real appointing power, but holds a wholesome check upon him.

Salaries—This is for the most part official. The school board as representatives of the people must determine what amount of money shall be appropriated for salaries, but here the professional supervisor should come in as the adviser as to the proper distribution of salaries.

Tenure of Office of the Teacher.—The superintendent and he alone is the person competent to pass upon the question as to whether a teacher's work is satisfactory or not. He and he alone can know whether or not the teacher should be retained. With a proper method of appointment there is but little practical good in a fixed tenure of office for teachers. Indeed an annual appointment permits a quiet dropping from the corps of a teacher whose services, while not entirely satisfactory, are yet not so decidedly inefficient as to warrant outright discharge for incompetency.

Course of Study.—It is the province of the board to determine the general scope of the school; as for instance, whether or not there shall be a high school; to determine the number of years' instruction in such school, and to determine the length of the school year. The sequence of studies; the time to be devoted to the respective branches; the text books to be used, are all matters that come within the true function of the school superintendent.

Supervision of Instruction.—It is the function of the supervision to unify the schools; to bind together the shifting mass of teachers into a compact and effective force; but it is a frightful waste of force. Will this always be so? The answer must be that it will ever be so until the schools are filled with a body of professional teachers who expect to make a life-work of teaching, and who have been trained with this end in view. And this brings up the woman question. No solution of this difficulty is possible while the teaching force is so largely composed of women as it now is. As long as it is so, there can be no permanent teaching force, and there ought not to be. In the respect of the employment of women in the public schools the pendulum has swung to the extremity of its arc. The

next two decades will most probably see a marked increase in the number of men employed in teaching as a profession.

The superintendent is not simply an overseer, he is not a teacher of teachers unless the corps be made up of incompetents. He is a general directing the operations, rather than a field or line officer engaged in executing them. He must be a close student of educational thought; he must keep abreast of the educational current; he must be able to inspire in his teachers the desire for professional knowledge and general culture far beyond the immediate demands of their school-rooms. The relation of superintendent to teacher should be that of confidential friend, not of overseer or task master. A quiet talk, in this relation, with a teacher who is in error will in most cases set right the wrong, and send the teacher away grateful for the consideration shown him or her.

This is much better than to use the teachers' meeting as a place to settle short comings and to dwell upon teachers' faults. Whatever may be the true function of the supervisor of schools, it is not that of chronic fault-finder or common scold.

Discipline.—No superintendent can govern a teacher's school. If there be not inherent force of command in the teacher, no outside influence can maintain discipline. Yet there are times when the good teacher's authority must be reinforced and sustained firmly and uncompromisingly. Corporal punishment has been abused, no doubt, but it is far better for an impudent, idle boy to be taught in the good old way, that "the way of the transgressor is hard," than to turn him out upon the streets to become vicious.

The collection and preservation of statistical information relative to his schools constitute an important function of the supervision of schools. The supervisor must know what his schools are doing, and he must know what they have done in former years, that he may form correct opinions as to whether or not there is real progress. He must also know what other schools are doing, that he may see whether or not his own schools are keeping pace with others in the grand march of educational events. The superintendent should look carefully to sanitary conditions of school rooms and school premises, and the hygienic habits of the children.

The school superintendent's position is by no means a sinecure, if he shall do his duty. As leader of the teaching force; as confidential friend and counsellor of the teachers; as adviser of the board in questions of school law and polity; as the close student of educational literature; as the reformer of abuses and the introducer of new methods; as the court of final resort in cases of discipline, he must be a man of wide and varied knowledge, of clear and comprehensive judgment, of patient and enduring industry, and above all a good judge of human nature, to perform his duties even in a way far short of his own ideal of success.

As Mr. Study's paper was read out of its place, J. C. Black, who was to have opened the discussion, was not present.

L. H. Jones said: I would say that the ideas presented, particularly in reference to the freedom of action which should be allowed to the

teacher, are exceptionally good. If I were to carry that suggestion any farther I think it would be merely this: In studying the educational questions as pointed out by the speaker, the superintendent must not forget to study the teachers as well. I remember in my own experience many occasions in which my superintendent was able to reveal to me certain possibilities of my work which would not have occurred to me. If the superintendent makes a study of the possibilities of the teachers he may reveal to them possibilities which they could not reach of themselves.

Hon. B. C. Hobbs said: The Commissioner of Education in Washington recently said to me that he admired the school system of Indiana more than that of any other state, because instead of spreading out and having many things independent of the others, it concentrated and unified its work. What we mainly need is for the State Board to study what the county superintendent should be before he can be inaugurated into his office. We do not know whether he is fit to be superintendent of the county schools until he shall have passed a test stand ard. It is a matter of surprise that we have not taken more care to know that county superintendents are well qualified, whether they are fit themselves to teach a school or pass the examination required by them of teachers.

S. E. Harwood said: The question is how shall we control the boards in the arrangement of the course of study. It is easy so far as from the first to the eighth year is concerned, but not so easy afterward. Each one wants his particular line of thought represented. One of the chief difficulties in the matter of science is here. In some parts of the state a teacher would subject himself to ridicule by taking any such thing as a laboratory method. The question is how to control boards that the supervision of the course of study shall be where it belongs. Boards claim for themselves the right to appoint teachers. The superintendent should have the right to suggest a number of those who may be fit for the position, and from these selections should be made.

W. A. Bell then said: Since the last meeting of this Association one of its charter members has passed away. I refer to James G. May. He has not been present at many of the later Associations, but was one of its charter members. He was the oldest active teacher in the state. He had taught more days of school than any other person living in the state. Inasmuch as he was a worthy teacher, a leader in educational thought, it seems to me we ought to pay respect to his memory. I move that a committee be appointed to prepare resolutions expressing our appreciation of his services.

B. C. Hobbs, A. C. Shortridge, D. E. Hunter, all charter members, were appointed on this committee.

EVENING SESSION.—This was devoted to a lecture by Dr. B. A. Hinsdale, of Ann Arbor, Mich. His subject was "President Garfield as Student, Teacher, Soldier, and Statesman." It was highly appreciated. A vote of thanks was tendered to Dr. Hinsdale for this address.

FRIDAY MORNING, Dec. 27.

J. W. Denny, County Supt. of Randolph Co., presented a paper on
THE RELATION OF THE DISTRICT SCHOOL TO THE TOWNSHIP HIGH SCHOOL.

Outline — Educational systems and institutions are not imposed from without, but they are developed from within the social fabric. Profiting by the failures and successes of past experience, we now have a school system in this state which ranks with the best systems in the nation. Our system of public instruction is much less complex now than it was a few years ago. The growth of the system has been towards unity and simplicity. The aim has been and now is to effect a complete gradation from the district school to the three state colleges. The facilities for a course of higher instruction is practically shut off from many boys and girls who complete the course of study in the country schools unless a township high school is maintained within their reach. The present system of transfer should be changed so that the graduates from the country schools could be admitted to the high schools of towns and cities without so much inconvenience and extra expense. The poor boy or girl should be put upon an equal footing so far as educational facilities are concerned, with those of wealthy parentage.

The State Board of Education should systematize and define the work of township high schools by the establishment of a standard of commissioning such schools to certify their pupils for admission to the freshman classes of the three state colleges.

County superintendents should insist upon trustees making a sufficient levy for an eight months' term of school in each district in the county, and the establishment of a sufficient number of township high schools to meet the demands for higher instruction of the boys and girls who finish the study of the district schools. The location should generally be in the centre of the township, but the schools already established, and the sanitary surroundings should modify this. In some cases provision doubtless could be made for caring for the horses and vehicles of pupils who drive a considerable distance. Under some circumstances this plan would be impracticable. The productive capacity of many pupils would be greatly increased by means of the higher instruction afforded by these schools; besides it would make additional safeguards in protecting the state and her institutions. These schools would become radiating centres for the diffusion of both intellectual and moral ideas which would redound to the welfare of the commonwealth in which they are located. Much time would be saved in the district schools, much of the strain thereon removed, and the facilities for the better education of teachers in the country would be greatly enlarged.

B. F. Johnson, Supt. of Benton county, opening the discussion, said: The question of township high schools, although not a new one, is one that has been discussed and re-discussed, and yet the theory is in its infancy. We must look upon it as something of an experiment that has not been thoroughly tested or tried. There are so many difficulties in

the way of the application of the theory that it would seem almost unnecessary that we should take up time in discussing it. But no great principle has ever succeeded without vigorous effort, thought and attention. We have learned to esteem the value of the wealth of a nation by its thought power, and we have also learned to look to the public schools of our country as the place to develop this thought power. And we have first to look, not so much into our colleges and universities, but to the district schools for the development of this power.

I was forcibly impressed with the remark of the speaker last night, Dr. Hinsdale, that the individual who laid the foundation of a great structure, who plants the stones in the mud so that his work is covered by the mud and water, and lost sight of in viewing the magnificent structure when completed, to him we owe a debt of gratitude. My thought is to-day that the district schools of Indiana are laying the foundation, planting as it were the stones down deep in the earth that are to become the basis of whatever educational structure is to be built in after years.

We are inclined to look into our high schools, colleges and universities for that which ought to take place in the district school. I have been forced to the conclusion that if we could have a thoroughly trained and efficient corps of teachers in the district schools, the other phases of education would take care of themselves. It may be that the township high school, one of the links in the chain, leads to these institutions, but whether it must exist in order that our educational system be perfect, is a question. As I said, there are so many difficulties it seems to be almost an impossibility that it should exist except in theory. On going into the average county you find that the facilities are all provided for reaching the county seat, where in all probability we have the high school.

Mr. Little, of Fountain Co.: I believe the township high school will one day be an essential step in the education of the youth of our state. I have found out this: About 90 out of every 100 boys and girls about 14 years of age leave the school. This is why I believe the township high school is the main step in the educational work of our state which has been neglected. The township high school is not only a theory. I believe in making a practical application of the theory. I believe the time is coming when every township will have a high school; and the way to do it is to organize one.

Mr. Ratcliffe: I have never seen a magnet that did not have two poles. I have never seen one that would not lift a greater weight by using both poles than by using only one. I believe this same element exists in many departments of educational work. I believe that in the school system there are two things that need to be recognized. There may be two parts compared by simile to the pole of a magnet. They act towards helping each other. The high school will assist those below and above; the higher parts acting for the benefit of the lower and the lower towards the higher. Let us not overlook or neglect any of these elements.

State Supt. La Follette: I presume all were struck by the thought suggested that the unequal development of our state is a great obstacle.

We have counties that have over one million dollars worth of gravel roads and are provided with good houses, and we have others that have not \$200,000 worth of improvements. It is an easy matter to secure a township high school in counties having the former state of development. If we could have a law authorizing trustees to provide for the admission of pupils of every township into the high school, much could be done. I am acquainted with individuals who pay more for the education of two or three children away from home than it would take to maintain such a school in the township. If we could have township high schools in the wealthier counties, it would be an inspiration to others. If we could have a law that would give, not merely nominal authority, but positive authority to trustees, and make it their duty to make such provision, we would find in a little while the natural elements that would solve this question.

Mr. Lyon, of Putnam Co.: I have in my mind a county having a hundred graduates from the district school. Not more than 20 percent ever go to a higher school, mainly on account of financial causes. If we had a township high school in each township, 50 percent would take the course in the township high school. It seems to me it would be the case in our county. I know several of our schools where pupils have graduated, and the teachers have taken upon themselves to teach them higher branches. I am thoroughly in favor of the township high school.

P. V. Voris: I think this subject not only affects our district schools, but would have a vital effect upon the smaller towns supporting schools of one, two, three or four departments, but not having a high school course. Many of them are not able to supply the necessary teachers and carry on a course of high school work. The high school must be supported by the smaller towns. And these towns would be helped much by the suggestion of our superintendent. They would be able to carry on a school having the necessary force to receive a commission to prepare pupils for state institutions. It would give an impetus to our smaller towns that they have not at this day.

J. M. Robinson, of Oakland City: One of the principal things I see in the township high school is the encouragement it gives to the district teacher. He is glad to be able to furnish one or more pupils to the support of the high school. It seems to be the nucleus around which the district schools may associate. Without this, each teacher is working independent of the other; this forms an ideal toward which all the teachers will work. That is what it should be. It gives quite an impetus to the work in the township.

Miss Sarah E. Tarney, of the Training Dept. State Normal School, then read a paper on "Ground of Professional Work." [This paper will be printed in full in the Journal.]

Miss Adelia Baylor, who was to open the discussion of Miss Tarney's paper was not present, and Dr. Hinsdale was invited to speak. He said:

I wish to say that I have listened with great attention and interest to this paper which expresses so clearly the very clear knowledge and thought of the writer. I think it is obvious to all persons who observe the educational thought of the times that we are undoubtedly making progress in one direction so far as our education and teaching are concerned. I think our methods of teaching are less empirical, less experimental, and that they are more and more being grounded upon philosophical knowledge of the elements involved in teaching and school management. There was a great deal of good teaching under the old regime, and there is no small amount of good teaching now done by those who have no very adequate or philosophical knowledge of education. The explanation is to be found in the fact that the teachers are endowed with a native faculty, and they have been led by this to results that are wholesome and excellent. No person who is competent to pass opinion on the subject feels like speaking in a disparaging way of the work done by those teachers; yet it is true and important for us to understand that true teaching is an art, very difficult and very noble, very delicate, and that it will be found in the end that those people will best succeed in the practice of this art who have observed and studied all the facts and elements entering into it. I think all the best teachers of the country are at present recognizing the truth that we must seek for a scientific basis, a philosophic foundation of our work. The paper is to be commended because it is a clear presentation, not of the proposition I have stated, but of some matters necessary to take into account by those who would work out the problem in this way.

I am pleased with the thought emphasized by the writer that mind is activity. It is mind activity that we deal with, that we are to direct and control. This suggests to me the very familiar observation that from its nature we are compelled to speak of the facts and phenomena of mind in figurative language. We have no first-hand words or terms in which we can express our knowledge about the mind. Men had a physical vocabulary before they had a metaphysical vocabulary. They took the terms they had been in the habit of using and used these in what logicians call second intention, that is figuratively, and applied them to the new objects and purposes. Men spoke of physical things being strong before they spoke of arguments being strong. Swords, knives and spears were spoken of as being sharp before speeches were thus described.

Right here have sprung up many of the errors and difficulties we encounter as cultivators or educators in regard to the mind. We have educational metaphors drawn from physical and mechanical processes; others drawn from biological subjects, none of which can fully answer the purpose. John Locke said the infant mind was a blank sheet on which we might write almost what we pleased; that is a mechanical metaphor. I do not know what state John Locke's mind was in when he coined that famous illustration; we know it is false, yet it has much practical suggestiveness in that the infant mind is greatly receptive. We know it is not a blank sheet of paper; we can not write upon it. Then we have the old block of marble if you please; how much cutting and carving of this we

have had on the commencement platforms of normal schools. Then we have the ball of clay and the ball of wax metaphors. I use these expressions; they are useful in a certain way, but as soon as we speak of them we see that they are wonderfully misleading and entirely unsuited for the purpose of metaphysical science.

It is a practice to speak of educational processes as being a growth or unfolding. "The blade, the stalk, the full corn in the ear," is more suggestive and helpful to the teacher than to look at it from the old fashioned standpoints. But after all, these do not answer the purpose, because the child is much more like a plant than a stone, more like a puppy than a plant, more like a vegetable than an inorganic substance, and more like an animal than a vegetable. These metaphors come short because there is an element of freedom and of original power that is not expressed. I do not know that we can suggest a proper view of the subject in any better way than to speak of the mind as activity: first, we may stimulate the mind to activity; second, we may direct and control the nature of the activity. No man can make a character for another, and fit it on as a garment; character, intellectual, moral, political, religious, social, is a growth, coming from a man's own soul, and all that the teacher can do is to stimulate the activity, guide, shape, and control it measurably.

Miss Annetta Maxam, of Indianapolis, then favored the Association with a vocal solo, which received a hearty encore.

After a short recess the following telegrams were read by the President:

TOPEKA, KANSAS, Dec. 26, 1889.

Twelve hundred teachers send greeting, and say that saloons driven from Kansas ten years ago can never return.

J. N. WILKINSON, President.

YANKTON. SOUTH DAKOTA, Dec. 26, 1889.

South Dakota sends congratulations to the Hoosier Schoolmaster and his sisters.

W. H. H. BEADLE,
E. M. CHAPLIN.

LAWRENCE, KANSAS, Dec. 26, 1889.

Accept most cordial greeting and hope for a large delegation next summer.

JAS. H. CANFIELD.

SPRINGFIELD, ILLINOIS, Dec. 27, 1889.

Illinois teachers return greeting, 800 strong. The good cause never promised more gloriously than to day.

A. C. BURTER, Pres.

LANSING, MICHIGAN, Dec. 27, 1889.

Michigan State Teachers' Association returns greeting. Let us meet at St. Paul in 1890.

L. R. FISKE, Pres.

Mr. Bass, Mr. Wissler, and Mr. Churchill were appointed as a committee to fill vacancies on the Reading Circle Board.

Mr. W. H. Mushlitz, Prin. Fulton School, Evansville, then read a paper on

THE INFLUENCE OF READING IN THE FORMATION OF OUR OPINIONS
AND PRINCIPLES.

Mr. Mushlitz said: An inquiry into this subject may not be amiss when it is remembered that much of our so-called popular literature at present is of a decidedly demoralizing character. When some of our leading papers and magazines make room for such intellectual monstrosities as—(here the speaker mentioned a number of the contributors of the aforesaid periodicals)—and place these wares in the most conspicuous places they can find to ensnare the young and unwary, it is time for the reading public to call a halt. This sort of literature has assisted in demoralizing the stage until decency hides her head in shame when viewing the flaming posters which strike the eye at every turn of the highway. These schools of realism present views of life fundamentally false. Writings of this class lead men to believe that they can be rich without toil and saving; that they can be amiable and attractive and yet full of hypocrisy and deceit; that they can be strictly moral and have lofty moral aspirations, and yet be immoderately sensual and brutalized; that they can blaspheme and yet enter the church sanctuary with propriety; in short, that they can be successful in the present and future life without complying with a single condition of success for either.

Ten millions of persons in this country find consolation in this kind of reading, and the large majority of them read nothing else. Even the teacher, with all his vaunted learning and his self-assumed superiority, is not above reading this class of literature. No words are sufficiently strong to describe the influence of this kind of reading matter in debasing the tastes, corrupting and demoralizing the principles, and overthrowing all regard for the restraint of the passions.

Bancroft and Hildreth, Prescott and Motley, Gibbon and Hume have not simply written out the story of the countries which have been their theme, but they have made a record between the lines of their characters and principles; have transcribed their passions and prejudices almost as fully as if they had so designed. Notable examples of the indirect influence of literature upon our opinions and principles are furnished in the celebrated histories of Hildreth and Bancroft, whose names we were taught to revere. Hildreth is free from unimportant discursiveness, but when pleading the cause of the Federal party, he is so bitter in spirit and so partisan in his judgment that every reader's confidence in the work must be materially weakened. Bancroft is comprehensive, and generally quite accurate, but his Democratic rant, his exaggerated declamation, betray somewhat the want of faith in the truths and principles which are presented to the reader. The three thousand years of the world's history do not present a single historian who has not interlined and infused his

own being in making his chronicle. Gibbon's work is the great treasure-house of digested learning and critical judgment for all other historians. Yet it is important that attention should be called to his great faults. Genius however exalted, learning however profound, and diction however splendid, can make no atonement for the sarcastic, illiberal and insinuating reflections made upon the church and the disciples of the Christian religion. Of the millions who have explored this great mine of history during the last century, few have escaped the indirect influence which pervades it in every part. Hume's history can not be contemplated in fragments. It is whole. He had a profound insight into human nature and human character, but lacked sympathy. For the heroic, martyr like or saint like men of sublime self devotion, there was no place in his philosophy. The tens of thousands who have confided themselves to his directions in the past, have had their enthusiasm for virtue depressed, their faith in God, morality and freedom demoralized.

Carlyle may be considered the disciple of perversity and everlasting opposition to all that others admire and esteem, often writing with brilliancy and power, never failing to secure attention and make converts to his cynical philosophy.

Byron is full of lust and unrestrained passion, satanic and misanthropical. He is the hero transcribed into his verses. All his poetry follows as a matter of course from personal experience and foundation. No young person, especially, can with safety be trusted with Byronic literature. The seeds of death shake themselves from every part. Shelley is blasphemous and atheistical. Moore's genius administers directly at the altar of foul concupiscence by the use of luscious and honeyed speech. Dryden deliberately wallows in a pit not only of grossness of speech, but of indecency. Milton can not always in his minor poems be defended on the supposition that he was young, or that the times were gross, still he shines with a brilliancy not admitting of comparison. Emerson is pantheistic, and while he may inspire Americans with feelings of pride, yet his admirers must be cautioned against a doctrine which tampers with the difference between right and wrong. Holmes proclaims a theology not in harmony with that taught by Christ and his apostles. Thoreau obtrusively announces his absence of faith in the received import of sacred history.

Literature is simply a reflex of the life of the people. Fiction is no less a strong factor in forming our opinions and principles. The unconscious imitator of Dickens is very apt to be full of slang, extravagant, and ready to adjust himself to any kind of society, copying his imperfections rather than his good traits. The partisans of Thackeray do not realize how harsh, cynical and satirical he is. Hawthorne, too, is the author of a philosophy not bright and balmy like springtime. George Eliot's students take a pessimistic view of life.

What is to be done in the selection of our reading? Robert Southey's rule is worthy of general application. "Would you know whether the tendency of a book is good or evil, examine in what state of mind you lay it down. Has it induced you to suspect that that which you have been accustomed to think unlawful, may after all be innocent, and that

that may be harmless, which you hitherto have been taught to think dangerous? Has it tended to make you dissatisfied or impatient under the control of others, and disposed you to relax in that self government without which both the laws of God and man tell us there can be no virtue and consequently no happiness? Has it attempted to abate your admiration for what is great and good, and to diminish in you the love of your country and your fellow creatures? Has it addressed itself to your pride, your vanity, your selfishness, or any other of your evil propensities? Has it defiled the imagination with what is loathsome, and shocked the heart with what is monstrous? If so—if you are conscious of all or any of these effects—or if having escaped from all, you have felt that such were the effects it was intended to produce, throw the book into the fire, young man, though it should have been the gift of a friend. Young lady, away with the whole set, though it should be the prominent furniture of a rose wood book case."

Mr. F. D. Churchill, Supt. of Aurora schools, opened the discussion. He said: If reading has so great an influence on the formation of principles as the paper claims, there is a very plain and imperative duty belonging to all who stand in the position of teacher of the young. It is this: to cause to form in the children the habit of reading that which is pure and elevating in character. If the paper has said truly—and I think it has—the teacher has no higher duty. The question is, Can he perform it? I say yes, under two conditions:—

1. The teacher of the young whose principles have been properly formed by good reading can do this. It is folly to expect him to interest his pupils in it without this. If the teacher has some appreciation of good literature, if he knows what suitable reading is, he may become a power in the accomplishment of this object.

2. He must not be too lazy to make use of the knowledge which he has himself. If the pupils leave the public schools without the habit of good reading fixed, it is because teachers have no appreciation of good reading, or they are too indolent to do what they might have done. Give a child a taste for a good book, and he will have the book and read it.

Is it not strange that there are whole counties in the state in which nothing has been done in the Young People's Reading Circle work? There are towns in which it has never been mentioned. If the teachers will do all they can do, the reading habits of the children of the state will be revolutionized before this Association shall meet again. Only a day or two ago I saw this in print: "The best criterion of successful teaching is the continuance of right reading habits beyond the school." Measured by this, how many of us would be charged with being unsuccessful? The answer is, far too many.

Mr. McGinnis, of St. Paul, Minn., representing the National Teachers' Association, was introduced, and in a brief but very enthusiastic speech described the vastness and the grandeur of the Northwest, concluding by expressing a wish that as many as possible of the teachers of Indiana would be present at the next meeting of the National Association in St. Paul next summer.

W. A. Bell, the State Director for the National Association, said that he was ready to give all desired information, and hoped that Indiana would be well represented.

FRIDAY EVENING.—The President announced the following Committee on Legislation: H. M. La Follette, T. J. Sanders of Warsaw, Edward Taylor of Vincennes, L. H. Jones, Indianapolis, J. C. Gregg, Brazil.

Col. Samuel Merrill, of Indianapolis, then presented a paper on

A BUSINESS MAN'S VIEW OF THE PUBLIC SCHOOLS.

He said: If it be thought important for the people of this nation to learn what opinions the English across the ocean entertain of us, even though they be full of misconceptions and inaccuracies, it may be desirable for the class in our midst that guides the youth to know the impressions, accurate or inaccurate, that are held by those who furnish the children and a portion of the funds.

The few moments snatched from business for the preparation of this paper have been employed simply in giving the view of an average looker-on, from which perhaps those fully acquainted with the working of the schools may learn how woefully ignorant common folks are, and can, if worth while, devise means for their enlightenment. * * * The experience of the business man in his own field of work enables him to appreciate the difficulties there must be in managing the variety of intellects in the school room. The complaints that bright scholars are kept back for the stupid, or that the slow are forced to keep pace with the rapid, the snail to race with the grass hopper, seem not altogether just, when one reflects that there must be some uniformity of pace or a score of classes in each room. * * *

The business man understands that teachers often have to take the place of parents and impart to the child the first ideas it has of right and wrong, of obedience and truthfulness, and all of the virtues on which character rests, and without which education is a curse and knowledge a power for evil. * * * Very likely changes are rung on the exhortations, "Be practical," "Teach the pupil how to do the thing in the shortest way," until the teachers are as weary of the everlasting advice as the scholars are of the eternal drill. * * *

No one can appreciate what are termed grand things until he glories in the interests that enwrap the little things; no one should reach for the far away and encourage others to strike out blindly therefor until familiar with and appreciative of the near at hand. The other day an old time soldier friend, who is janitor of a building, asked me for help in behalf of his little daughter who had been given a subject for an essay—"Saturnalia." Certainly it is right for the well-informed to reach out for knowledge, even though they have to go into the dim uncertainties of twenty-five centuries ago, but one can only pity both man and child laboring to discover bread in this stone.

The business man's view, which may be superficial, finds a lack of that

self abandonment to their profession on the part of some teachers which is always necessary to high proficiency. The intimation is sometimes made that women teach while they wait and hope for something to happen; listening for the blessed words, "Barkis is willin'." Quite as often do men pretend to teach, while they are preparing for the professions of law, medicine, or theology, or looking for an opening in business. There can be no enthusiasm on the part of scholars whose teacher is thinking of desertion at the first possible moment. The children may be crammed with facts, but there will be no development of mind. The news boy and the boot-black will come into the employ of the merchant with more accurate and with more trustworthy characters than the scholars of such teachers.

The other day I passed two little girls just as one was saying, "My teacher don't tell us anything." One could not keep from saying to himself, that teacher ought not to stand on the order of his going, but go at once and get a license to marry or to preach. It may be that the boy or girl who takes no interest in the work assigned in the shop or store has learned this indifference from an indifferent teacher. What an opportunity those to whom the youth of the nation are confided have to rise above the text-books, and teach the scholars how to think aright, and the glory of doing right, not because watched or paid, but because it is right.

* * * No class of the community is making greater efforts towards improvement. Within the last ten years there have been change and progress. Before that a certain affectation and stiffness of manner, a consciousness of personality, a sense of importance, a peculiar tone of voice, infallibly proclaimed the teacher.

Yet now and then an old-time specimen, superfluous lags upon the stage and in swollen verbosity condescends to impart the veriest common-places. An expressman, whose stand is two squares south of this, described, in his inimitable dialect, such an one to me yesterday:

"Jis 'bout half nour go, thar struck dis hyar circle street, de mos' pompusset gemman I ever seed, and 'menced goin' roun'. When he done come to Morton's statyer three times, he 'peared like a whipt chicken and says he, 'My fren' kin you kindly 'form me how to withdraw from dis hyar confusin' place? I'm 'ceedin' zirous to git to Plymouth Church on time, but follerin' dis hyar 'culiar street don't seem to be fotchin me no neerder to dat locality.'" The moral in this incident will not be seen by those who need it.

The change that is taking place comes from the fact that teachers have been relieved somewhat of the treadmill work, and have in consequence both time and inclination to taste the sweets of a generous course of reading. Teachers buy more books than any other class in the community. The man owning broad acres or lofty blocks, the well-informed physician, the attorney who claims that his library is in his tool chest, the clergoman who feels that he is the instructor of men, have no such longing and gentle reverence for a good book as that which distinguishes the preceptor and makes his name lead all the rest. It would be amazing to the millionaire, it certainly would be touching to one who could appreciate a

love for knowledge, to see the poor country schoolmaster with an income of forty dollars a month parting with one quarter of it to gratify an elevated taste and enjoy a refined society that kings, who know not the sesame, can not enter.

Many a child can testify to the faithfulness and patience of the instructor in giving the 'odd hours to bringing him up to his class. Often the burden of the unfortunate pupil's stupidity is borne by the teacher till repeated kindly explanations, when all others have gone home, have removed difficulties and brought clearness of vision. Orphanage, or the ignorance of parents, has been a call for help to which many have responded, and the poor boy and girl have received mental aid of life long benefit. "How far that little candle throws its beams!"

The boy who has been governed by kicks and cuffs yields to a gentler control, and learns for the first time that another is deeply interested in his welfare. One is moved with admiration at the sight of girls from the most disheartening surroundings toiling through all the grades under the greatest disadvantages, through the years preparative to teaching, without seeing more of the pleasures of life than this experience gives, plodding on, unconsciously missing the richness that would have come could they only have had a year or two of entire change of scene and occupation to relieve, enliven and enlarge their existence. Nor is it a rare occurrence that a girl works on in the round of duty year after year, growing paler and paler, till a visitor, finding her place filled by another, is told in answer to his inquiry, Oh yes! she died last spring. He is mistaken who thinks that things can be so well systematized that sixty pupils can be governed with as little nervous strain as thirty, and that there is true economy in placing teachers and scholars in such relations. An army which is supposed to be the beau ideal of efficient organization, always has one tenth of its force officers, and often twenty percent. It should be borne in mind that the non commissioned are just as truly officers as the commissioned, and frequently more serviceable.

It would seem to the on-looking business man that not only are the teachers too few for the number of scholars, but that the play-grounds, in the cities at least, are too small. It may be if there were places for amusement, more time would be given therefor. The fifteen minutes allowed for recreation do not suffice for any game to be started, cause no variety of excitement, no demand for skill, no development of strength, no such wholesome change as results in intense application to book, as soon as the moment for study comes. As it is, the play-ground appears to a passer by as a miniature Andersonville prison pen, with teachers stationed here and there as guards, to keep the stronger captives from stepping on and killing the weaker. The effect of this inability to engage in sports is noticeable in the unhealthy interest the boys who come from the schools to the stores take in out-door games played for them, and the readiness with which they take part in in-door games that certainly do little or no physical good. It is the old story of the Romans letting the gladiators do their fighting, while they lazily watch the struggles and bet on the result. * * * *

It is a subject for profound congratulation that our schools are so largely in the hands of women ; indeed were it otherwise it would be fighting against the eternal fitness of things. 'Tis ever thus, thus may it ever be. Heaven bends earthward and confides the Boy of Bethlehem to the Virgin Mary. When Purity with all her sweet and gracious influences shall possess the souls of men as she now holds sway in the hearts of women, the millennial dawn will enlighten the world.

Howard Sandison, Prof. of Methods State Normal School, then read a paper on

A PROFESSIONAL VIEW OF THE PUBLIC SCHOOLS,

of which the following is an outline :—

- I. Advantages of Criticism upon the Schools from Without. It emphasizes unemphasized points, and thereby leads to reflection and re-adjustment.
- II. The Limitation pertaining to those from Without who Criticise the Schools :—
 1. An undue magnifying of the industrial phase of life.
 2. The entertainment of the view that upon the schools alone rests the adequate education of the child.
- III. The Aim of the School. This is four fold :—
 1. To give the child an insight into his capacities, so as to enable him to decide the sphere of life appropriate to him.
 2. To give him an intellectual readiness that enables him to comprehend readily any specific phase of work presented to him.
 3. To implant in him a tendency to idealize or improve the features of any work upon which he is engaged.
 4. To confer an ethical stability that will prohibit his bending his own or another's business, in deference to unworthy motives.

Illustrations of these four points in various vocations.
- IV. Defects of the School Conferring this Four fold Education.
 1. A course of study that consists too largely of language—that deals too exclusively with books.
 2. A method of dealing with the course of study that is marked too largely with verbalism or formalism—a method that makes the child too largely receptive—that does not make him an independent investigator of real things.
- V. The Grounds of these Defects :—
 1. Incorrect ideas of the aim of education—that it is to give information—to give a mastery of books.
 2. Insufficient teachers who, having been appointed on grounds other than fitness, have no clear knowledge of the subjects, and of their true method.
 3. A course of study pertaining too exclusively to books.
- VI. The Remedy for the Defect :—
 1. Teachers more thoroughly qualified.

2. Smaller schools to each teacher, in order to allow more individual teaching.
3. The elimination of certain studies from the present course of study, and a shortening of the time appropriate to them; and the incorporation in the course of the principles of the kindergarten, and the elements of manual training.

Mr. D. E. Hunter then presented the report of the committee on memorial to James G. May:—

The messenger of Death has taken from our ranks, since we last met, a devoted fellow-laborer in the educational work of the state, in the person of JAMES G. MAY, of Salem, Washington Co., Indiana.

He was a native of Kentucky, and came to this state about 1824. After having taught at various places in the country, both in Kentucky and Indiana, he became the assistant of the late Hon. John I. Morrison, at Salem. Soon after completing his service at that place, he accepted a call to take charge of the Decatur County Seminary at that place, which he did. He taught there with great success until 1852, when he went to the city of New Albany, where he continued his work as principal of the Grammar Schools, principal of the High School, and Superintendent of the City Schools until 1858. In September of that year he took charge of the Salem High School, where he continued to teach with eminent success until 188-. After that time he taught at Fredericksburg, Campbellsburg, Kossuth, and other places in Washington county. His last school was at Kossuth, where he died in the harness, on the 27th day of February of this year.

He taught more days than any other teacher who ever lived in Indiana, and probably more than any other in the United States, having taught in the state about 63 years. The state has thus lost one of its most efficient educators. Peace be to his memory. He gave his last lesson to his class the day before he died, at the good old age of 84.

B. C. HOBBS,
A. C. SHORTRIDGE, } Com.
D. E. HUNTER,

The Committee on Resolutions submitted the following report, which was adopted by the Association:

1. That we favor a judicious compulsory education law.
2. That there should be a standard of proficiency for the county superintendency, and that the office should be free from the influence of party politics.
3. That our schools should be supplied with the best text-books that genius, experience, and mechanical skill can produce, and that adoption in all cases should be free from the influence of monopolies.
4. That we view with gratification the study of pure and wholesome literature by the teachers and pupils of our state; and that the tendency towards a scientific investigation of educational problems by the teachers generally is to be commended.

5. That the Indiana State Teachers' Association should exercise a directing influence in the school legislation of our state.

W. F. L. SANDERS, }
E. A. BRYAN, } *Com.*
D. W. THOMAS, }

D. E. Hunter, chairman of the Committee on Revision of the Constitution, submitted the following report:

The Committee on Revision of the Constitution begs leave to report that the work assigned has been performed, and the result is herewith presented.

Acting under the advice of the president and other leading members of this Association, your committee has also held a conference with a committee from the Collegiate Association, and the joint-committee recommends that the constitution here presented be printed and distributed among the members of the several associations concerned, in order that it may be used as a basis for action next year. The joint committee also advises that in preparing the program for next year, the General Association occupy Monday evening, Dec. 29, Tuesday morning and evening, and Wednesday morning; the Collegiate Association Monday afternoon and evening, and Tuesday afternoon; the High School Association and the Country and Village Association Tuesday afternoon and Wednesday afternoon. Respectfully submitted,

D. E. HUNTER, }
JOSEPH CARHART, } *Com.*
S. E. HARWOOD, }

SATURDAY MORNING.—Hon. H. M. La Follette, State Superintendent, addressed the Association on "The Net Results of the Educational System in Germany." [A full synopsis of this will be given in a later number of the Journal.]

W. N. Hailman, Supt. La Porte Schools, was to open the discussion, but was not present.

Prof. Earl Barnes, of the State University, spoke briefly in the discussion. He said there were some features of the German system he would like to see introduced here; the industrial part of it, that the boys and girls shall be taught to work. Also the instruction in Natural Science, he thought would commend itself to every intelligent teacher. Yet he doubted the possibility of bringing the German customs here and accepting them without disastrous results on account of the elements of pressure and excessive organization in it. He expressed himself as in most hearty sympathy with the American system of education on account of its great freedom.

The discussion was further continued and participated in by several members, but owing to the conversation carried on by newspaper men at the desk of the secretary, what was said must be forever lost to history.

After a short recess, Prof. Carhart was called upon for a report from the Reading Circle Board.

He would simply submit to the secretary the circulars containing a full statement of what had been done. He did not think it would be interesting or profitable for him to take up the time of the Association with any speech, but upon solicitation made the following statements:

The membership of the Teachers' Reading Circle is about 9000—the largest on record for this or any state. The most popular book for this year or any year is Steele's Popular Zoology, a book that was revised and largely re-written by Dr. Jenks, of Brown University, who has devoted a long life to scientific study, and afterwards submitted to the head of the Department of Zoology in the Smithsonian Institute at Washington. It is a book which was fully endorsed before it was placed upon the course by your board, and which has been very enthusiastically endorsed since, and which we hope has done some good. It seems worth while to say this because of criticism from high authority concerning the book. It is very difficult to recommend a course of work in Natural Science which is entirely satisfactory to all our members and certain high authorities in Natural Science.

Some one recommended that we have a laboratory work in Physics and Chemistry, costing about \$1.50, and employing a large amount of practical experimental materials, costing about \$5.00 aside from the laboratories, which the members might make in their kitchens. It did not seem to us that it would be profitable to enter upon anything of that sort. The second proposition was to outline a course in Zoology, requiring members to make dissections of animals, and that we might specify the animals. These they might take into the kitchen, the back yard, or somewhere for examination. That seemed impractical on some accounts, and finally an eminent scientist said to us: There are two things you might do; first, aim at scientific training; second, investigation in science or scientific information. The first two propositions, the work in Chemistry and Physics and the experimenting, and the dissecting of animals, this eminent authority said amounted to scientific training and not information. It would be difficult in the high school and impossible with the 9000 teachers all over the state. We think the scientific information would be useful, valuable and practical. We endeavored to do this, and so recommended the book. It seems to us that gratifying results have come from the work. We had thought until recently we were carrying out what could reasonably be expected of us in that direction.

Concerning the Young People's Reading Circle we estimate that about 30,000 children of the state are doing more or less of this work. Some interesting letters have been received from the children in answer to the circular letters sent out to them. One boy has never read any books outside of his school books. He decided that he would like to enter into this work. He did not have any money and but little time. He walked to school three miles every day, and worked for his board and clothes. He did not see how he was going to get the book and do the work. He

told the teacher that after school he would stop and sweep the school-house for money to buy the book. She selected for him 'Heroic Deeds,' a little book describing the heroic conduct of men in certain emergencies. It is a pleasant thing to think of that boy who had never read a book, and who was willing, in addition to his other work, to sweep out the school-house all winter for the sake of reading one of those books. It is a pleasant thing to think of that kind of a boy reading that kind of a book. If nothing else ever comes, I think it is worth all that we have done to get that kind of a book into the hands of that kind of a boy. (Applause.)

The work seems to be progressing. More has been done than could reasonably be expected. We discover children everywhere that are hungry for the spiritual food that has been provided for them, and we find the books admirably adapted to their needs.

J. C. Black' Supt. Michigan City schools, who was to open the discussion of Mr. Study's paper, but who was absent at the time on account of change of program, was now called for to speak on reading circle work, or to take up the discussion that had been assigned him.

He said: I want to present some thoughts on the functions of school supervision, and in regard to the paper before you. I had divided the subject into four heads, and made subdivisions under those heads:—

1. The business function of school supervision.
2. The systematizing function. The planning out of systematic work for the school. It devolves upon the superintendent to arrange a system, to plan the work, and the more logical it is, the more it is in accordance with the development of the children's minds, the better will be the results.
3. The elevation of the standard of educational thought among the teachers. That is a very important function of school supervision which many do not realize. Under that I had two subdivisions: First, the inspection of the work of the teacher; then the teachers' meetings. I place great stress upon the work done in the general teachers' meetings.
4. Another function is to elevate the standard of educational thought in the community in which he resides. If a man's influence can not reach out and elevate the educational standard of the community he is not fit for the position.

I would take exception to the sentiment in the paper in regard to corporal punishment. I stand here to day as an advocate against corporal punishment. Very nearly all of my 22 years' experience in teaching has been passed without the use of corporal punishment, and I say that in all that experience I have had but little trouble and few cases of suspension.

In regard to the Reading Circle. This, in my estimation, comes right into one of the functions of this school supervision—the elevation of the educational thought of the teacher. I am glad to say that the teachers of Michigan City, with the exception of two, are all actively engaged in the reading circle work; and they spend one evening in every week in discussion of the subjects, making preparation beforehand, and coming prepared to talk—and they do talk!

The Committee on Nomination for vacancies in the Reading Circle Board reported the names of Mr. D. M. Geeting and Mr. A. N. Crecraft, these gentlemen to be their own successors. Adopted.

TREASURER'S REPORT.

D. E. Hunter, Treasurer, in account with I. S. T. Association, <i>Dr.</i>			
Dec. 28, 1889.	To amount on hand at last report. . . .	\$93	43
" " "	To amount received from fees and dues, .	194	00
" " "	To amount received from Grand Hotel, .	85	00
" " "	To amount received from sale of tickets, .	7	50
<hr/>			
Total received,		\$385	93

Contra.

Dec. 28, 1889.	Paid Plymouth Church, Voucher	31	\$85	00
" 26, "	Paid Dr. Hinsdale, lecture	" 32	50	00
" 28, "	Paid Anna E. H. Lemon, R. Sec. . . .	" 33	15	00
	Paid J. W. Layne, Ex. Com. etc. . . .	" 34	31	80
	Paid " " Dr. H's exp's. . . .	" 35	11	70
	Paid F. H. Smith, printing, etc . . .	" 36	4	90
	Paid R. I. Hamilton, Ex. Com., . . .	" 37	9	50
	Paid J. A. Zeller, R. R. and tel., . .	" 38	4	80
	Paid D. E. Hunter, Per. Sec'y	" 39	37	48
	Paid J. H. Henry, Ex. Com.	" 40	4	60
	Paid Nelson Yoke, R. R. Sec'y	" 41	25	00
	Paid Jesse L. Scott, Asst. Sec'y . . .	" 42	5	00
	Paid W. E. Henry, Asst. Sec'y	" 43	5	00
	Paid Nora E. Hunter, Asst. Sec'y, . .	" 44	5	00
	Paid Roy Nixon and N. Yoke,	" 45	2	00
Jan'y 1, 1890.	Cash on hand,		89	15
<hr/>				\$385 93

Members enrolled January 1, 1890, . . . 332.

D. E. HUNTER, *Treasurer.*

The officers elected for the next year were as follows:

President—W. W. Parsons, Terre Haute.

Ex. Committee—D. W. Thomas, Elkhart, chairman.

W. E. Lugenbeel, Borden Institute.

E. E. Stevenson, Rising Sun.

J. R. Hart, Union City.

G. W. Hufford, Indianapolis.

J. H. Reddick, Winamac.

Wallace Palmer, Columbia City.

Vice Presidents—Miss Julia Bierbauer, Evansville.

W. B. Almond, Saline.

Miss Kitty E. Palmer, Franklin.

W. R. Nesbit, Sullivan.
Miss Mattie Moore, Lebanon.
L. O. Dale, Wabash.
S. E. Harwood, Attica.

Rec. Secretary—Mrs. Anna E. H. Lemon, Bloomington.

Treasurer—D. E. Hunter.

Railroad Secretary—Nelson Yoke.

After the expression of thanks by the President for the forbearance shown by members during the sessions of the convention, the Association adjourned until December, 1890.

J. A. ZELLER, PRESIDENT.

ANNA E. H. LEMON, *Secretary*.

HIGH SCHOOL SECTION.

The High School Section met Dec. 26, with Mrs. Bessie Cox, of the Kokomo high school, presiding.

In a few timely and well-chosen words the president referred to the purpose and work of the Section, and then called the first exercise, a paper on "The Nature and Purpose of High School Discipline," by P. A. Allen, Supt. of Bluffton schools. The paper had been carefully prepared and was well received.

The second number was a discussion of the question, "Should Grammar be Taught in the High School?" by Miss Martha J. Ridpath, Prin. of Greencastle H. S.

Miss Ridpath said that the answers to a circular letter sent by her to the principal high schools of the state revealed the fact that grammar was taught in most of them. Some taught it there for the first time, others reviewed it there, but almost all gave attention to it in the high school. This fact the reader argued made more tenable the position which she wished to take, namely, that grammar should be a high school study; for the reason that it is an abstruse, difficult subject, and needs the power of mind comparatively well developed for its comprehension.

In the discussion W. F. L. Sanders, of Connersville, opposed the position of the reader on the ground that common branches must be confined to the grades in order to give the high school a chance to do the other and more advanced work.

Arnold Tompkins, of De Pauw University, concurred heartily with most of the paper. He said a great mistake arose from confounding composition work and grammar. In reading the mind works from word to thought, in composing from thought to its wording—both are single processes, as in one case the child is striving only to get the thought, in the other only to get the wording. Thus reading and composition are simple mental processes, they are suited for the child mind and by them

he can be trained in the accurate use of language. But grammar is a study not of thought alone or words alone, but the relation of thought to words and the modification of words by changes in thought. Being a study of relations it is complex and psychological and needs all the training of the high school mind for its grasp.

Dr. John Clark Ridpath suggested the idea that although the words in grammar could not in fact be separated from the thought, still it might be an advantage to teach them as they are, as thus the mere forms of the language could be sooner mastered.

The question was further ably discussed by C. R. Dubois, Miss Mowrey, S. E. Harwood, W. W. Parsons, H. G. Woody, W. E. Henry, Samuel Lilly, and Jonathan Rigdon.

The next number was a symposium on "How can High School Pupils be Trained to Study Intelligently?"

G. L. Roberts, of Greensburg H. S., said it could be done by rearranging the work of the text book so as to bring out the subject by topics.

Miss Emily W. Peakes, of Terre Haute H. S., said that by a system of daily marking of recitations, thoroughness, interest, and intelligence in study could be gained.

Miss Kittie E. Palmer, of Franklin H. S., solved the problem by appealing directly to the more advanced pupils and enlisting their co operation, also by re-organizing subjects.

W. M. Wheeler, of Evansville H. S., said that organism is the condition of life in the material world—also in the intellectual. To vitalize a subject its organization must be brought out. Its organizing forces are the law of continuity, that of cause and effect, similarity and unlikeness, etc. Bring these out by the recitation and the pupils will admire, become interested, and soon be studying for these relations, which is intelligent study.

After appointment of T. E. Kinzie, W. E. Henry, J. Z. McCaughan as a committee to nominate officers, the Section adjourned.

December 27.—The opening discussion was on the subject, "Is it the Duty of the High School to Prepare for College?" by J. P. Funk, Prin. New Albany H. S.

The reader said it was the duty of the high school to give to its pupils and through them to its immediate vicinity, the best possible general culture. It was in fact the people's university, and must fulfill its mission.

In the discussion Prof. John M. Coulter, of Wabash College, said that colleges wanted not that men should do any certain kind or amount of work, but should have training—mental muscle—and that it is immaterial to the colleges by what work this is gained. He commended the high schools for the work they are doing, and said the colleges were not only satisfied but pleased with it.

Similarly interesting views were expressed by Mr. Newland, Mr. Voorhis, Prof. Barnes, Prof. Hopkins, Mr. Hamilton, and G. W. Hufford.

In conclusion Prof. Craig, of Purdue, said that these opinions were almost identical with those he had just heard expressed in the College Section, and suggested that as they were agreed the sections ought to meet together and discuss the matter.

Following this came a paper on "History in the High School," by J. W. Carr, of Muncie.

He said that history is a science. It deals with force—the force of ideas. Ideas have life conformed to certain laws. 1. Every idea tends to perpetuate itself. 2. Ideas constantly conflict with each other. 3. By association hostile and amicable they affect each other. 4. A change in one idea causes change in others.

Superiority of history study appears in the fact that it develops memory, imagination and reason. Also by the study of noble characters develops the affections and strengthens the will. By study of the progress of race it destroys pessimism, by explaining the grandeur and historic beauty of our institutions it is deadly to anarchism and fosters patriotism.

The reader would have a three years' course in history in the high school. First year devoted to study of the main features of general history; second devoted to English history; third to be applied to a philosophical study of U. S. history, in connection with a study of the Constitution, amendments, and the creeds of the different political parties—all leading to *intelligent citizenship*.

The paper induced a spirited discussion by Mrs. Mower of Warsaw, Profs. Craig of Purdue, Curtis of De Pauw, Barnes of the State University, and Mr. Woody of Kokomo.

The closing article of the Section was on the subject of "Mathematics in the High School," presented by J. C. Trent, of Noblesville.

The reader extolled mathematical study for its practical value in forming character. It is a study of relations and relations make life. It aims at absolute accuracy. The great intellectual evil of the day is loose generalization.

The paper was favorably discussed by Prof. Parsons, Mr. Dickerson, J. W. Carr, and J. P. Funk.

The nominating committee announced its report, which was adopted, and the following officers elected:

President—J. W. Carr, Muncie.

Vice-President—Mary E. Folk.

Secretary—G. L. Roberts.

Ex. Committee—W. E. Henry, Peru, John A. Wood, P. J. Kuntz.

Adjourned.

W. M. WHEELER, *Secretary*.

VILLAGE AND COUNTRY SCHOOL SECTION.

DEC. 26, 1889—2 o'clock P. M.—The Section was called to order by James H. Henry, who introduced Wm. H. Chillson, the Chairman-elect of this Section.

George M. Williams was appointed Secretary.

Mr. Chillson then spoke of the wise provision in creating this Section.

Prof. Sandison then discussed the "State Course of Study for Common Schools."

The two things of greatest importance in making a course of study is the holding in mind the nature of the study itself, and the principles. The present course presents many excellent features, being the best that has ever been furnished our schools. It also contains many objectionable features, the chief of which are the failure to throw the studies nearest related into groups, the failure to show the unity existing throughout all the studies, and the preponderance of the verbal side, leaving the idea in the background. Every course of study should clearly set forth the range of studies; what ones fall in groups, that is, what one study is more nearly related to two or three others than any other; and thirdly, should show the different phases into which any one subject naturally falls. In dealing with the last point the speaker illustrated by taking language for an example. There is a period in the child's life, he said, when he looks at language as a united whole—called first phase. Second phase—the time when the sentence breaks up in parts. Third phase—that in which he sees the logical relation of unity. Fourth phase—the distinguishing mark of each study—what each study deals with that certain others do not. How is a teacher to find out what is in a subject? It is not to be determined by tradition, experience, or text books.

Supt. Kline, of Huntington county, said that he wished to emphasize the points made by Mr. Sandison. He also stated that the course of study had met with success in his county.

"Natural Science in the Teachers' Reading Circle" was next given by Edward Hughes, of Brookville. The chief points of the paper are—

1. Facts should be taught in their relations.
2. It is a fault of our text books to teach a great deal about the zoological material that exist in remote parts, and fail to cultivate in the child a habit of observing the things around him.
3. Natural Science is best taught by the actual observation of the objects themselves.

F. B. Dressler thought that children should study the animals and make their own classifications.

W. H. Elson spoke of the difficulty the board had encountered in selecting a suitable text on the subject.

B. W. Everman thought a wiser selection might have been made, leav-

ing the impression by his further remarks, that in his opinion it would have been better to make no selection.

Thursday, 2 P. M.—Ryland Ratcliffe, of Fairmount Academy, was appointed Secretary.

The first subject of the afternoon, "Common Sense in the School Room," was discussed by Geo. F. Bass.

After considerable study he had concluded that no definition of common sense was possible. The sense that is most common is not common sense. A number of illustrations were given showing the advantage and method of use of this valuable qualification. Common sense is something that can be cultivated: it will prevent teachers from teaching things "by rule"; it will enable us to understand the reasons for the methods used in the school-room and the principles upon which our methods are based.

Edward O. Ellis, of Grant county, next read a paper upon the "Basis of Apportionment of the State's Revenue."

The fact that the amount of money expended in the education of each child of the state varies from two to nine dollars shows the importance of this question. He produced statistics exhibiting the inequality existing in the length of the school year between the district and city schools, giving the latter a great advantage. This is partly owing to the fact that in the cities a full enumeration is taken and the attendance falls very short of the enumeration, while in the country districts a less complete enumeration is made and the attendance is much more nearly equal to the enumeration. The greater length of school in the cities also enables the city pupils to graduate and thus leave school earlier, and hence this makes the difference still greater. Legislation should proceed very carefully.

Mr. Ellis recommended that the distribution be made upon the average attendance instead of the enumeration.

Quitman Jackson, of Hancock county, expressed fears that an unpleasant contest between the city and county superintendents would grow out of this question. He favored the recommendations of the paper.

L. H. Jones, of Indianapolis, argued from facts connected with the management of the funds of his city that the distribution is now upon a proper basis. The city pupils receive the advantage of free schools during a large number of days for a few years, while the country pupils get such advantage during a smaller number of days for a greater number of years.

T. A. Mott, of Dublin, thought that taking all things into consideration the country schools are more efficient than those of the city. The city, having the greatest concentration of wealth, pay a large share of the taxes, and hence pay into the funds more than they receive back, and ought not be asked to contribute still more.

E. J. McAlpine, of Kosciusko county, agreed with Mr. Mott, and

and the agitation of this question grew out of some supposed fraudulent enumerations in some of the large cities.

The committee on nominations presented the following report, which was accepted:

President—G. L. Harding, of Elkhart county.

Vice-President—David Wells, of Hamilton county.

Secretary—Miss Emma Chapman, of Bloomfield.

Ex. Committee—E. J. McAlpine, chairman, Warsaw.

R. J. Kuntz, Centerville.

George R. Wilson, Jasper.

A. N. Crecraft, Franklin.

James H. Tomlin, Clinton.

Resolved, That the idea of having the General Association in the forenoon and the Sections in the afternoon is a good one, and is heartily approved by this Section. *Passed.*

Adjourned.

W. H. CHILLSON, *President.*

RYLAND RATCLIFFE, *Secretary.*


KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

[This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools. He is also the author of several educational works.]

THE BEADS IN NUMBER LESSONS.

IN the lessons with the beads outlined in the last article, the gains in number knowledge are still somewhat incidental. They are not on that account any the less real. On the contrary, the close connection of these gains with form and color and—above all—with the child's joy in their rythmical combination, renders them more real, more tangible to the child.

In due time, however, it becomes desirable to put greater stress on the number facts, to isolate them more and more from attending impressions of form and color. For this purpose the spherical beads are singled out as the most suitable. They alone admit of perfect contact with each other, while, at the same time each bead stands out boldly as a complete one. This will be readily appreciated, if we string—

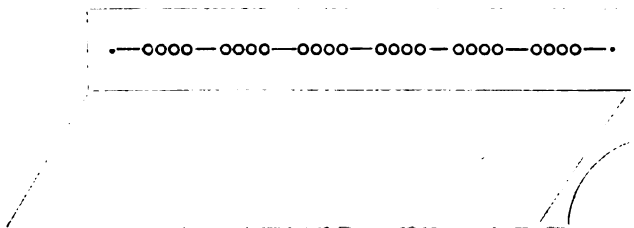
Four cubes, thus: 

Four cylinders, thus: 

Four balls, thus: 

Only in the last case does the *four* readily appeal to the eye as *four ones*. In the other cases, the contact is so close as to escape notice when this becomes superficial or relaxed.

For a typical exercise, the child receives several sets of four beads, e. g., eight (twice four) red beads, eight yellow, and eight blue beads. These he strings on a shoe-string or wire fastened to the back of his desk, thus: Four red, four yellow, four blue, four red, four yellow, four blue balls—



The children then, may be requested to place the fours to the left of the string; to move the four blue balls to the right; to make them into twos, saying, "In four there are two twos." Each set is, then, in turn treated similarly, the child finding in each case, in spite of the difference in color, the constant fact that *in four there are two twos*.

The exercise may, then, be reversed. The child is requested to move the two red twos to the right; to put them together, saying, "Two twos are four." This, too, is repeated with each set.

Then may follow similar exercises, breaking up each four into one and three, into one and two and one, into two ones and one two, etc. Each of these analytic processes should be followed by its corresponding synthetic process, restoring the fours.

Subsequently, as a new series of analytic processes may be instituted, in which the child learns to see and to name the *two* (beads) as *one half of four*, the *two twos* as *two halves of four*, the *one* (bead) as *one fourth of four*, etc.

The results of these exercises may be summed up in methodical arrangement, like the following;

a. $4 = 2 + 2$	b. $4 = 1 + 3$	c. $4 = 1 + 3$
$4 = 1 + 3$	$4 = 2 + 2$	$4 = 1 + 1 + 2$
$4 = 3 + 1$	$4 = 3 + 1$	$4 = 1 + 1 + 1 + 1$
d. $4 = 2 (2)$	e. $4 - 1 = 3$	f. $2 (2) = 4$
$4 = 4 (1)$	$4 - 2 = 2$	$4 (1) = 4$
$[4 = 2 (1) + 2]$	$4 - 3 = 1$	$[1 (3) + 1 = 4]$

g. $4 \div 1 = 4$ (1) (In 4 how many ones? Four ones.)

$$4 \div 2 = 2$$
 (2)

$$4 \div 3 = 1$$
 (3) + 1

$$4 \div 4 = 1$$
 (4)

h. $\frac{1}{2}$ (4) = 2

$$\frac{1}{4}$$
 (4) = 1

$$\frac{2}{4}$$
 (4) = 2

$$\frac{3}{4}$$
 (4) = 3

Again, the children may be tested in miscellaneous exercises in which the completion of the number sentence constitutes the problem. Thus:

a. $4 = 2 +$

$$4 = + 3$$

$$4 = 1 + 1 + 1 + 1$$

c. $4 - 2 =$

$$\frac{1}{2}$$
 (4) =

$$2 + 1 + = 4$$

$$4 \div 2 =$$

$$\frac{3}{4}$$
 (4) =

b. $4 = 2$ ()

$$4 = 4$$
 ()

$$4 = 1 + 3$$
 ()

d. $2 = 4 -$

$$2 = \frac{1}{2}$$
 ()

$$3 =$$
 (4)

$$4 =$$
 (1)

The string, prepared as above, may also be used for counting exercises, counting by ones, twos, threes, or fours.

In counting by ones, the *five* will, because of the color, appear as *four* (red balls) and *one* (yellow ball); the six, as four and two; the seven, as four and three; the eight, as two fours. Similarly, in counting by twos, the six will appear as four and two; the eight, as two fours; the ten, as two fours and two.

For further and fuller information, I would again refer the reader to my "Primary Methods," published by A. S. Barnes & Co.

THE STRING OF FIVES.

Five is an exceptionally important number. In the five fingers, it comes to us as the first natural basis of numeration. Earlier civilizations were apt to stop at this. To them six comes as five and one, seven as five and two, ten as two fives. For this we have proofs even in current Roman notation. It is well to make much of this in primary number work.

As soon as the child may have become fairly familiar with *five* in ways indicated by the treatment of *four* in the foregoing article, a permanent string of fives should be prepared for more extensive synthetic number exercises within the limits of 1 and 20. For this purpose the child strings (e. g.) five green and five red, and again five green and five red beads. The five green and five red beads make ten; the second set of five green beads yield ten and five (five-teen or fifteen); and the addition of the second set of red beads yields the two tens (twain-tens or twenty).

With the help of this string the child may construct synthetic tables of addition and multiplication within the indicated limits. Thus:

$$\begin{aligned} a. \quad & 2 + 1 = 3 \\ & 3 + 1 = 4 \\ & 4 + 1 = 5 \\ & 5 + 1 = 6, \text{ etc.} \end{aligned}$$

$$\begin{aligned} c. \quad & 1 + 3 = 4 \\ & 2 + 3 = 5 \\ & 3 + 3 = 6 \\ & 4 + 3 = 7, \text{ etc.} \end{aligned}$$

$$\begin{aligned} e. \quad & 2 (2) = 4 \\ & 3 (2) = 6 \\ & 4 (2) = 8 \\ & 5 (2) = 10 \end{aligned}$$

$$\begin{aligned} b. \quad & 2 + 2 = 4 \\ & 4 + 2 = 6 \\ & 6 + 2 = 8 \\ & 8 + 2 = 10 \text{ or } 2 (5), \text{ etc.} \end{aligned}$$

$$\begin{aligned} d. \quad & 1 + 4 = 5 \\ & 3 + 4 = 7 \\ & 5 + 4 = 9 \\ & 7 + 4 = 11, \text{ etc.} \end{aligned}$$

$$\begin{aligned} f. \quad & 1 (3) = 3 \\ & 3 (3) = 9 \\ & 5 (3) = 15 \end{aligned}$$

Similar tables in division, subtraction, and part-taking are in place; also miscellaneous exercises involving the various operations at random. Again, computations in buying and selling, in which the beads represent articles of purchase or money, will be found useful and interesting.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

A DEFINITE PURPOSE.

EVERYTHING studied has many relations, and hence presents many phases to the attention. The mind of every pupil has its peculiar disposition and is, in consequence, inclined to notice elements in an object, that other pupils are disposed to slight.

If a poet and a farmer stand near a field of ripened wheat, the ideas present in the mind are, as to the elements, substantially the same. The elements *selected*, however, are different; in a certain sense, each sees a different field of wheat. The poet selects and emphasizes those elements of the presented data that symbolize æsthetic meaning; the farmer, those that symbolize utilitarian meaning.

It is thus in the entire realm of knowledge. The known field of wheat or the known world is not a mere copy of that which exists. In each case it is, to a certain degree, the result of the mind's own constructive activity.

The clearness of the purpose in the mind of both the teacher and pupils is an important factor in determining what is seen. The end in em-

emphasizing elements in the case of the farmer and the poet was in general, however, only that of knowledge or meaning, but it was definite in each case. Further illustration will assist to make clear the importance of knowing definitely the purpose of the work, and of having the pupils know the distinctive point for consideration.

If one in examining a board that has been pierced by a bullet, has in mind the purpose of knowing the direction of the bullet, he does not emphasize among the elements presented, that appropriate to the width of the board, its color, length, the position of the hole or its size, but those elements symbolizing the direction of the fibers of wood in the bullet-hole. If the purpose were to know whether the board was pierced by a bullet or a shot, the element appropriate to the size of the hole would be emphasized. If the aim were to decide whether it was a spent ball, that element appropriate to the strength of the board would be emphasized.

These cases bring into view the idea that teaching is a process of leading the pupils to accomplish an ideal that they have in mind.

ATTENTION IN MEMORY.

THE art of memory is the art of attention, said Dr. Johnson, and another thinker has declared that genius itself is nothing but the power of continuous attention. The mind's power of retaining an idea varies as each of the following three things:—

1. The strength of the first impression, which strength depends on the whole mind's being concentrated on forming the idea; in other words, on the amount of attention given it.
2. The length of time during which the thought keeps possession of the mind.
3. The frequency of its renewal, i. e., the number of times it is brought back into consciousness.

The first thing to be secured, then, is attention. As we all know, there is such a thing as voluntary attention, when the mind resolves to fix itself on a certain subject, and does so. We are constantly expecting young people to give voluntary attention to the work before them, and we say that the power of voluntary attention is of the very greatest importance. No doubt it is. But voluntary attention is one of the highest functions of the trained intellect, and nothing is more ridiculous than to make great

demands on the voluntary attention of young people. It is, in fact, to expect at the outset of their intellectual training just what that training will in the end give them, where it is perfectly successful.

In early stages, we must think more of involuntary than of voluntary attention, and by means of it must cultivate a *habit of attending*. Even involuntary attention is not continuous in the very young.

We see the infant attracted by some object, say a bunch of keys. In a few seconds it throws it away, and grasps at a watch chain. In a few seconds more it turns from this to look about for something else. Here we have the power of attention in the earliest stage of all; and in the next, i. e., in young children, there is, as we all know, a restlessness which can be satisfied only by perpetual change in the direction of thought. If the teachers neglect this simple truth about the nature of mind, unpleasant consequences are likely to ensue. The children will soon cease to attend even to instructions which for a little while may be well suited to them. When they are no longer occupied with the matter in hand they speedily become "naughty"; that is, each child's energy takes an independent direction, and the harmony of the class is at an end. To restore it, the teacher has recourse to punishment, and thus from their earliest years children are accustomed to look upon learning as one of the chief troubles of life.—*How to Train the Memory*—REV. R. H. QUICK.

THE MAP TO PRECEDE THE TEXT.

IN geography, the map should be made the basis of study in every possible case. Many of our school text-books on geography do not seem to be constructed according to this idea, and we find in them, under the heading "Description", such statements as these: "North America is situated in the western hemisphere." "It is bounded on the east by the Atlantic Ocean." "The principal mountain system is the Cordilleras, in the western part"—each of which facts might be ascertained by the pupil in the study of the map. The latter method of arriving at the facts gives him greater mental activity. Since discipline is the end of all school work, this reason alone would indicate that the method is preferable to learning the facts from the mere statement of them. It gives, in addition, greater power to interpret other maps and makes the pupil to a degree independent of description (which does not accompany every map he

have occasion to see). Viewing the question from the information, it will be observed that the points of knowledge which the pupil picks out for himself from the map are more vivid than if presented to him in the other way; hence they will be better remembered.

It will be readily seen that any point in the study of the *position* of a country can be reached through the map, *e. g.*, actual location as to latitude and longitude, relative position, natural and artificial boundaries. From position in zones, the general idea of *climate* can be worked out, that is, the climate as it would be if uninfluenced by local configuration. A study of surface will throw light on variations from this.

A relief map is desirable in the consideration of *surface*. Some geographies afford a substitute in maps which picture out the highlands, showing in a limited way the relative height of different sections. Where neither of these aids is available, the ordinary map will serve to show much more than it is sometimes made to show. Planes and plateaus are usually indicated by difference in shading, and a general idea of slope can be obtained from a study of the rivers.

This work affords a basis for the study of *products* and *occupations*. Knowing the surface and climate of a country, inferences can be made as to the productions; through them, of the industries. This is, of course, to be supplemented by the description.

In the study of *cities* the map is an important device. From it, the pupil can determine not only what are the principal cities of a country and their location, but can see reasons for their position. Since geography deals with man in the institution of business principally, such questions as these are to be considered in regard to a city: "Is this city in a favorable situation for commerce?" "It is in a position to trade with what countries?"—questions that call for a careful study of the map.


It is a good plan to substitute for the map questions that generally accompany the maps in our school geographies, an exercise in which pupils make out their own questions. A subject may be assigned, as Surface, and pupils may be required to prepare a certain number of questions, being careful that no question is asked which varies from the given topic and that each can be answered from the map alone. F. L.

HAPPY the teachers who have to do with intelligences naturally curious, but especially happy those who know how to excite curiosity and to keep it alive.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw Normal School.]

METHOD IN DEFINITION.

 DEVELOPING definitions is so large a part of the teacher's work that the method of doing it deserves full and careful consideration. As the first step in the discussion, this article will present

THE NATURE OF DEFINITION.

Definition is the mental process of conceiving the Content of a Class, or General Idea.

The content of a general idea is the sum of attributes common to a number of individuals. The content of the class quadruped is the sum of the attributes, sensation, voluntary motion, vertebral structure, peculiar nervous and circulatory systems, quadrupedal, and so on, including whatever else may be found in each animal of the class. Thus, Content is the sum of the common attributes of a number of objects—such attributes in any object as may be found in any other of the class. This Content, Definition must exhibit.

This definition of Definition becomes more explicit by observing that the Content of a general idea is constituted of two relations—the *universal* and the *particular*, or its *likeness* to and *difference* from other ideas.

The class oak tree has a common nature with all trees; through them with organic life; and through organic objects with all being. If the attributes which the oak tree has in common with trees, or with the larger group of organic objects, or with the universe of objects, be taken away, the oak is destroyed. Also, if that which separates the oak tree from the class tree be taken away, the oak is destroyed. The class oak can not exist except through the union of both phases of this truth. It is the life and being of the class oak tree. Again, to be sure that this point is clear, imagine before you all apples. Now, these apples have attributes in common. Some of the common attributes are peculiar to apples alone, and the others are found in stones, in oranges, in birds, in man, in everything—are universal. To think away either those that are common and peculiar, or those that are common and universal, is to destroy the thought of apples. The union of the common, particular attributes with the common, universal attributes constitutes the nature of apples.

Therefore, the fundamental truth in any class of things is the truth common to them and to the larger class of which they are a part, plus truth common to them alone, and which permanently distinguishes them from the class of things to which they belong. The first phase of truth maintains the connection of the class with the universal being; second, the particular existence of the class to some particular end.

Hence a definition is to exhibit the Content of an idea, and since this content is the union of the two relations of particular and universal, a definition may be explicitly defined as *the process of forming a conception of the universal and the particular nature of an idea*. That is, a definition is the process of forming a conception of the essential nature of the idea under discussion. Hence their necessity and general use.

Therefore, *method in definition is the mental process of conceiving in unity the particular and universal nature of an idea*.

This proposition will be pursued further.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

WHAT CAN THEY DO?

THE teacher should be more concerned in what his pupils can do than in what they know. He should aim to give them knowledge in a way as to develop their power not only to use the knowledge just received, but also to get more knowledge. The pupil should be prepared for "independent activity"—should gain the power of *self-direction*. The teacher should ever have this object of teaching in mind, i. e., he should be as strong a believer in it as he is in the law of gravity. He should be to obey it as unconsciously as he does the law of gravity. As he goes up a steep hill, he leans forward to keep the centre of gravity within his base, but he does not say so to himself, he simply *does* so. He *can* say why he does it, however. So he should know and obey the laws of development of mind.

Pupils learn addition, subtraction, multiplication, and division of fractions, and finally they perform these processes mechanically. This is right.

These become mere tools to use in reaching other results. Teachers often neglect to stimulate the other powers of mind while the children are perfecting themselves in these mechanical processes.

Pupils in the third grade are often better thinkers than they are when they have reached the fifth grade and have "finished fractions." Teachers who have constantly in mind that they are teaching to develop the power to do as well as to give knowledge, will see that the pupils are kept *thinking*. It is necessary that they should know *how* to add, subtract, multiply, and divide; it is just as necessary that they know *when* to do these things. Therefore, problems that require such thinking should form a part of each day's lesson. Any pupil who is old enough to understand fractions certainly is old enough to *think out* the following:

John lost $\frac{2}{3}$ of his kite-string and had 75 feet left. How long was the string at first?

But the teacher may say he can not until he is "drilled" on that *kind* of example. If *drill* means that he is to learn to do this as a kind of pattern to "work that kind by," the drill is worse than nothing; but if the *drill* will fix in the pupil the habit of thinking, it is well.

Ask the pupil what *part* of the string he had left and he will likely say $\frac{1}{3}$. If he does not, ask how many thirds might the entire string be divided into. If he knows what a third means, he will say three. Then if *two* of them are lost, how many are left? What *part* is left? Read the problem to see if you can tell how many feet long that third is. "Seventy-five feet." "Then how many times that length was the string at first?" "Three times 75 feet, or 225 feet."

Now follow this with another *just like it*. No! Follow with another that will require him to think. If he solves ten or twenty just like this, he solves by *sample* and does *not think*. Try him on this: 75 feet is $\frac{3}{4}$ of the length of John's kite-string. How long is it? He has not yet gained power enough to do this, perhaps. Help him a little,—just as little as possible. Ask him to see if he can find the length of $\frac{1}{4}$ of it. Let him try awhile. If he fails, ask him how *many* fourths of the length 75 feet is, and let him try some more. *Don't* tell him to *hurry*. *Don't* keep talking *to* him or *about* him. Let him think. He finally gets it. If he is not too tired give him this: $\frac{2}{3}$ of 75 feet is $\frac{1}{2}$ of John's kite-string. How long is the string? Perhaps he may get this himself. If he does not, after a reasonable trial, help him some more. He will finally

the power to think these out for himself. Growth is slow. Don't be discouraged, and do not discourage the pupil. Keep some miscellaneous work before him all the time. Do not let him solve problems mechanically. He *may* and should learn to do the abstract processes mechanically. He should not have them presented to him that way at *first*. They should be used to help develop his power to think. He should see the *sense* back of the rule. After this he should use the processes so often that they become almost a "second nature" to him. We walk without thinking, but there was a time when it took our attention.

COUNTRY SCHOOL DEPARTMENT.

[Conducted by W. H. CAULKINS, Supt. Tippecanoe County.]

GRAMMAR.

In our last we treated of the so-called language work, i. e., the *art* side of the form study of language. We wish in this to suggest a few practical hints on the *principle* side of this same form-study. We shall assume for our purpose that grammar has a place justly in the course, and that it has a distinct educational value in training the pupil to close analytical thinking.

It follows at once that grammar should not be begun until the pupil has acquired a large stock of facts from which to draw his conclusions; and he should be led to analyze these facts and overline, as it were, the general principles of language: the spelling of words, the classification of words as used in sentences, the construction of sentences, and the construction of paragraphs and whole compositions. These are the four principal divisions of this subject.

In regard to the first: *Spelling*. The pupil should be taught to spell the words he uses, both in the vocabulary he speaks and in the one he reads. The latter is much more extensive than the former. The time for this exercise should form a regular part of the program. We did not make a distinct, separate part, but a regular part, i. e., whenever new matter has been gone over, whether in reading, arithmetic, geography, history, or grammar itself, a part of the time devoted daily to *form study* should be given up to this work. We do not mean that there should be set les-

sons daily in spelling and in grammar; but that a certain fraction of the time daily should be set apart in the teacher's mind exclusively for form-study. In this time all the "spelling," "language," and "grammar" should be taught; really it is all *grammar*.

In the majority of country schools time is wasted daily over long lists of unused words that could far more profitably be given to lists prepared by the teacher. "More work for the teacher"? Yes, of course, teachers are not more exempt from working for a true success than other persons. Without raising the question as to the merits of oral or written spelling, since they are of the same value if used rationally, we advise written work as the most time-saving, and would further advise that all words be put into sentences. Who will mark the papers? The teacher. What else is he there for? A little practice will enable him to mark thirty papers of ten sentences each in less than fifteen minutes. Draw a line through each mis-spelling and require the word to be copied correctly *until learned*.

Rules for spelling should be taught and drilled on until learned. Here is a chance for oral work, as none but perfectly familiar words should be used, and long lists made out so that each pupil may spell at least ten, without too close repetitions of the same word, say fifty words for thirty pupils, or twenty words for ten pupils. Rules for spelling include forming the plurals and the possessives; for capitals and italics; for hyphens and apostrophes. We would include under this head, spelling, the study of the derivation of words, and the values of all ordinary affixes. The work should begin in the lowest grade and run through the whole course. Surely there will be plenty of time, if the time is judiciously managed.

As to the study of Etymology: This is the beginning of what is usually designated grammar. The pupil should begin in the fourth reader work to classify his words, and to understand the meaning of subject and predicate, and modifier. We can recommend nothing more practical for this work than "Hyde's Practical Lessons in English" (D. C. Heath). The work is fully outlined there.

As to the study of Syntax: This is the most beneficial of all the form-study work, since a complete understanding of the thought is dependent on an understanding of the construction of the sentence. The only rule is, *analyze*. For convenience and to save time we confess we find the "cruel diagram" most efficient. The pupil can express the relations of

parts of the sentence rapidly and completely by its use. No doubt poor, animated sentence objects to being vivisected, but we would test that in some pupils' minds it is very devoid of animation until it itself "hung on the hooks." We would suggest also that the teacher have no hobby in this subject. The object is not to teach diagramming, but to teach how to find the relations of the parts of the sentence. This should come at the hour of "form study." We would not have a lesson or lesson every day, but would have much written individual work. What the pupil does for himself is of value to him. Surely, in four years, three lessons a week will cover all the necessary ground.

Under the fourth division we would include letter writing; notes of accounts; bills, checks, receipts; the correct writing of compositions—beginning, heading, paragraphing, one side of paper, etc.; study of feet in poetry, etc. This branch may begin with the fourth reader work and extend through the course. It may very properly occupy one or two lessons a week at the time of a different set of form-work—writing. After the third reader, the pupil should surely be far enough along in writing to know the proper shapes of the letters, etc., and should be able to make writing subservient to something else. Fortunately our copy-books recognize this.

We think we have covered the field of all "form-study" of language, spoken or written. (Pronunciation, etc., belong to the "oral" reading, which have been touched on before.) If the crowded country teacher will lay down and divide his time in somewhat the following manner, he will find his way becoming much clearer:

Thought Studies.	Reading	75	minutes.
	Arithmetic	75	"
	Geography and History	75	"
	Science	55	"
Form Studies.	Grammar	40	"
	Writing	20	"

This gives for daily work 340 minutes, leaving 20 minutes for two recesses. We know it can be done for we have done it. Sixty minutes a day during the whole seven or eight years' course ought certainly to be enough to train the pupil to write, to spell, to understand "grammar," to write compositions, etc., correctly, and much else related work, if the time is skilfully managed.

We need to break away from the old ruts and plan our work to our own ideas. We need to learn what is essential to knowledge and mind growth. We need, in short, to put our intelligence into our work, "to

mix brains with our paint," in order that we may do the most effective teaching. The question for each and every teacher to solve is, how must I fit my teaching to *this* set of pupils? Solve that and you can not fail of success.

EDITORIAL.

OFFER EXTRAORDINARY—RENEWED.

To every subscriber of the Journal who will send to the editor a *new* subscriber and \$1.25 (club rate) between now and April 1, 1890, will be sent, post-paid,—

"THE EVOLUTION OF DODD."

This "Evolution of Dodd" is a story of a boy's life, giving all his school experiences. It is written by an experienced teacher and illustrates many phases of school management. It is highly entertaining, and at the same time is full of practical suggestions to teachers. It contains 253 pages, is in good type, and neatly bound in paper cover. Dr. E. C. Hewett, author of *Hewett's Pedagogy*, says of the book: "I am glad 'The Evolution of Dodd' is to be kept before the public. It is an interesting story, and has many valuable suggestions for teachers and parents. It presents some points not often found in books on pedagogy."

Now let every subscriber to the Journal secure a new subscriber *at club rates*, and get this interesting and helpful book.

If necessary offer to loan "Dodd" to the new subscriber.

NATIONAL EDUCATIONAL ASSOCIATION.

The National Educational Association and Council of Education have decided to hold their next Annual Convention at St. Paul, Minnesota, July 4 to 11, 1890. Hon. James H. Canfield, of Lawrence, Kansas, is President of the Association. It is expected that there will be twenty thousand teachers present from all points of the Union. The Western Railroads have already agreed to sell tickets to St. Paul and return for one lowest first class single rate for round trip. Eastern and Southern Roads will make low rates, which will be announced at an early date. St. Paul has organized a Local Executive Committee and the most complete arrangements are being made to give the teachers a splendid welcome to the Northwest, and to make the meeting a great success. There will be ample hotel accommodations at reasonable rates. Local excursions are being planned to all important points of interest in the Northwest and on the Pacific Coast. ONE HUNDRED THOUSAND copies of the OFFICIAL BULLETIN will be issued in March. It will contain full particulars about program, entertainment, rates and routes,

will be sent free to all who send names and addresses to S. SHERIN, Secretary, Local Executive Committee, St. Paul, Minn.

place of the great mass of matter usually incident to National Association bits, it is desired to make an exhibit at the St. Paul meeting comprising as many objects as possible, yet clearly illustrating the course and kind of work being done in the progressive schools of our country along the following lines:

(1) DRAWING.—Only working drawings and work done in light and shade in color.

(2) INDUSTRIAL WORK AND MANUAL TRAINING.—A progressive series of recent exercises in paper, cloth, clay, wood, or metal.

(3) DOMESTIC ECONOMY.

(4) GEOGRAPHY AND ELEMENTARY SCIENCE.—Devices, apparatus and appliances for the better presentation and understanding of these subjects in grades from the high school.

Any one willing to aid in such an exhibit is asked to communicate with C. A. NETT, St. Paul, Minn., and receive full instructions.

ANSWERS TO THE STATE BOARD QUESTIONS.

The Journal has been publishing answers to the State Board Questions for many years, but these answers have never been prepared by the editor himself. He can not do everything connected with editing and publishing the Journal, and has entrusted this work to others, and the only reason the name of the person answering the questions has not been given, as have the names of persons in other departments, is that during most of the time the subjects were divided out and several persons did the work.

As these associates are all selected for their ability and special fitness, the editor seldom if ever reads their manuscripts, and in many instances does not see the matter until it appears in the Journal. This being true, it frequently happens that statements are made and views expressed that do not coincide with the views of the editor. In fact it is often the case that articles are printed, in the departments and in the body of the Journal, that simply express the views of the writer, without reference to what the editor may think.

In answers to questions, of course there is great room for difference of opinion. Many a question admits of different answers, owing to the information given, the view of the person making answer,—besides persons may often be in error as to facts, and then, with the best of intentions, make wrong answers.

The History questions answered in the December Journal contained several statements that gave room for differences of opinion, and one of these, the 4th, seemed to be of a political nature. The answer to this has been criticised by several teachers and a few political newspapers. Some have been so unfair and unjust as to charge that the Journal was attempting to teach politics, etc.

Why did not those persons who took exceptions to the answer write a friendly letter calling attention to the errors in it, just as they would have done had the

question been in grammar, or geography, or arithmetic? Such a letter would have been gladly received and had prompt attention.

The editor wishes to say that the idea of exerting political influence through answers to questions, never entered his head. It just happens that the person who has answered the History questions most of the time in later years is a person politically opposed to the editor.

The Journal is not political in any degree, and regrets the publication of the answer referred to, and to avoid even the *appearance* of partizanship will hereafter omit answers to all questions having a political bearing.

*SCHOOL TRUSTEES WHOSE TERMS EXPIRE IN AUGUST CAN
ENGAGE TEACHERS.*

The last General Assembly amended the law relative to the election of township trustees by providing that the trustees to be elected in the coming April shall not begin their duties until August 1. In many counties of the state it has been the custom to employ teachers at the close of the school term for the next school year. In this manner the trustees are able to secure the best teachers and retain them in their schools, and such teachers are assured of positive employment long before the time of the beginning of the school term. In view of these facts, the Superintendent of Public Instruction recently asked the Attorney General if the present trustees can legally contract with teachers at the close of the present school term for the school year 1890-91.

The Attorney General gave an opinion on this question, and in it he states that each civil township is a distinct municipal corporation for school purposes, by the name and style of the civil township; by that name it may contract and be contracted with, and the trustee of such civil township is the school trustee of such corporation. Sec. 4438, R. S., 1881. Such trustees are required to take charge of the educational affairs of their respective townships, and are empowered to "employ teachers." Sec. 4444, R. S., 1881. The language of the section, which authorizes the trustees to employ teachers, the Attorney General says, is general. It does not limit or restrict the trustees in the performance of this duty, but the power to employ is vested in the trustees in broad and comprehensive terms. If it had been the legislative intent that contracts with teachers should not extend beyond the official term of the trustees, it is safe to assume that such purpose would have been declared in the statute in appropriate words.

The absence of such qualifying or limiting words, he thinks, gives emphasis and additional force to the broad terms of the statute, and justifies him in the presumption that the legislative power fully realized that to limit the right to employ a teacher for a time not beyond the trustee's term of office would lead, at times, to great embarrassments, and often deprive the township of the opportunity to secure the services of desirable teachers. It is true, he says, that a partial, unwise or corrupt trustee may impose upon the patrons of the school,

exercise of this power, but they have a sufficient remedy against such an emergency. Sec. 4501, R. S., 1881. The office of trustee may become vacant by death, removal from the township, resignation, or removal from office by the judgment of a court. It would be a strange and unreasonable construction of a statute which would terminate the teacher's contract with every such termination of the trustee's office. The power to employ teachers was, doubtless, for these reasons, made general, and a contract for the services of a teacher, which extends beyond the trustee's term of office, must be held valid if made in good faith and without fraudulent collusion. Again, the contract made by the trustee is the contract of the corporation, which does not end with the term of office, but continues indefinitely.

The Supreme Court in *Reubelt vs. The School Town of Noblesville*, 106 Ind. 106, held that the school trustees of an incorporated town had the power to employ a teacher for a time extending beyond the date of the reorganization of the town. In that case the court construed Section 4444 R. S., 1881, so far as it relates to the school trustees of incorporated towns, and held that there is nothing in the grant of power to employ teachers which, in any way, limits the authority of the trustees that are to be performed during the existence of any particular term of that body. The ruling principle in that case governs the case now before the Superintendent of Public Instruction presents. The Attorney General therefore decides that a trustee now in office may make a contract with a teacher, in good faith, and without fraudulent collusion, extending into the term of office and which will be binding upon his successor.

The above abstract of opinion, which was printed in the *Indianapolis Journal*, contains the main points in the decision. Many years ago, before the Supreme Court had decided the *Reubelt* case, and when the Attorney General was ruling on a school board of a city, previous to its reorganization in June or July, could employ teachers for the next year, the *Journal*, without pretending to know the law, took the ground that "equity" would put the appointment of teachers in the hands of the "old board."

On the assumption that the "old board" or the "old trustee" is just as competent and just as honest as the new one, the weight of argument is in favor of the old officer making the appointments. In the first place the old officer has acquaintance with the teachers and the conditions that the new officer is not likely to have for some time to come; and in the next place it is simple justice that superintendents and teachers should know at the close of the school term, whether or not they are to be retained for the following year. It would be an excusable hardship imposed upon teachers were they required to wait till after August 1, without knowing whether or not they were to have places for the following year. The above decision is good equity and ought to be good law.

DO YOU FORGET IT?

Don't forget what?

To pay for your JOURNAL at the time agreed upon.

Those sending money to the editor of the Journal do not use "checks." It costs from 20 to 25 cents to cash each.

IN sending pay for the Journal be sure and name the agent with whom you subscribed. It is better to inclose stamps for change than silver, as the silver, unless well wrapped, cuts the envelope, and is lost.

BANNER COUNTIES.—The following counties secured the premiums offered for *one hundred percent* of the teachers of the county as subscribers to the Journal: HOWARD, STARK, BROWN, and DECATUR. It is not yet determined whether other counties will get the lower premiums.

To each of the above counties has been sent *thirty-three* first-class educational books; so each teacher in the county gets double the worth of his money:

1. He gets the full worth of it in the Journal.
2. He gets the full worth of it in the opportunity to read each of the thirty-three books.

Every county in the state needs a teachers' library.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN NOVEMBER.

[These Questions are based on Reading Circle Work of 1868-9.]

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

U. S. HISTORY.—1. In what ways did the Missouri Compromise differ in its provisions from the Wilmot Proviso?

2. What relation did the Kansas-Nebraska Bill bear to each of the above?

3. Give the limits of the United States as determined by the war of the Revolution, and the extent and history of the annexation one of the important additions since made to our area.

4. Show three marked extensions that have been made in the right of suffrage since the first settlements in this country.

5. Trace the influence on legislative enactments of this country of some one statesman.

6. Trace the growth in religious toleration since the founding of the first colonies.

7. State in brief what you would think appropriate and advisable to teach as a biography of Calhoun or Sumner.

8. What different conditions contributed most to the great difference between the Northern and Southern colonies in reference to public education?

Trace the influence on the civilization of this country of two important inventions.

Show two advantages of the Constitution over the Articles of Confederation. (Any seven.)

ARITHMETIC.—I. Explain the difference between *number* and *figure*. Upon what does the value of a fraction depend?

A farmer bought $100\frac{1}{2}$ acres in one farm, $87\frac{1}{2}$ acres in another, and sold 100 acres; how much had he remaining?

What fraction divided by $\frac{2}{3}$ of 12 will give $\frac{1}{2}$ for a quotient?

Write decimally, $\frac{1}{2}$ of 1%. Bought apples at $\frac{1}{2}$ of a cent each, and sold at 1 cent each; what was the gain per cent?

A man sold two horses for \$120 each, on one he gained 15%, and on the other he lost 15%; did he gain or lose on the entire operation, and how much?

What is the face of a note at 90 days, the proceeds of which discounted at 6% are \$2,000?

Sold \$460 Canadian money at $\frac{1}{2}$ % discount; required the discount and market value.

The difference between two numbers is 120, $\frac{1}{5}$ of the first equals $\frac{1}{4}$ of the second; what are the numbers?

A certain bin is 8 feet by $4\frac{1}{2}$ feet by $2\frac{1}{2}$ feet, and its capacity 75 bushels; how deep must a bin be to contain 450 bu. if it be 28 ft. long by $3\frac{1}{2}$ ft. wide?

A room is 25 feet long and 30 feet wide; what will the flooring cost at 15¢ per square, deducting a fire-place 6 ft. by 4 ft, 6 in., and a stairway 8 ft. by 6 in., and allowing $\frac{1}{2}$ for waste?

GRAMMAR.—I. How does each of these italicized expressions modify?

a. The children walked *rapidly*.

b. Shakespeare *was fifty-two years* old the very day of his death.

c. One hundred and twenty-three persons died in the Black Hole of Calcutta *because the air was so impure*.

Analyze: Socrates said that he who might be better employed was idle.

Parse the italicized words in the following: Half-learned lessons slip from the memory, *as an icicle from the hand*.

What part of speech is each italicized word in the following, and how is it used?

a. She grows more *queenly* every day.

b. *Cæsar having crossed* the Rubicon, Pompey prepared for battle.

c. Ask somebody *else*.

Analyze: Wherefore plucked ye not the tree of life?

Correct, giving reasons:

a. He laid abed till breakfast was ready.

b. I expect it *rained* here yesterday.

c. Let him send *her* and I.

Write correctly: Think you Abel said Paul at last that the storm drove him hither.

8. What are the classes of sentences on the basis of meaning? Give an example of each.

9. What is mode? Name the different modes and give sentences with verbs in each mode.

10. Name the mode auxiliaries; the tense auxiliaries. (Any eight.)

SCIENCE OF EDUCATION.—[Five of these questions are based on the Reading Circle work of the current year. The applicant is to answer any five of the ten.]

1. What does Compayré consider the object of general education?

2. What are the two grand divisions of the treatise entitled, "Compayré's Lectures on Pedagogy," and what is the scope of each?

3. Why is it that only human beings can be educated?

4. In what sense is there a real science of education?

5. What distinction is made between education and pedagogy?

6. With what other sciences is the science of education most closely connected?

7. What is meant by mental habit? How are mental habits formed?

8. What is the general relation of the power of attention to efficient mental work?

9. On what does the power of attention depend?

10. All knowledge is a converting of the unknown into the known. Explain this statement.

PHYSIOLOGY.—1. Describe the brain, and name the membranes with which it is invested.

2. Explain the digestion of starchy food.

3. What substances are normally excreted by the skin? By the lungs?

4. State some of the effects of breathing impure air.

5. What are the uses of perspiration?

6. Why should certain kinds of food be cooked?

7. Name two evil effects of tight lacing.

8. By what means are the nutritious portions of the food taken up and carried into the circulation?

9. Describe and explain fully the structure of a muscle.

10. What is the effect of active exercise immediately before or after eating? Give reasons for your answer. (Any eight.)

GEOGRAPHY.—1. To what European ports do passenger steamers sail weekly from New York? What is the usual length (in time) of the trip from America to Europe?

2. Name in order the largest five cities of the United States.

3. Name the capitals of Sweden, Switzerland, Chili, Japan, Georgia.

4. What is the difference of time between Indianapolis (Long. 86° 6' W.) and London? What causes difference in time?

6. What is a glacier?

7. What is a geyser? What causes its eruptions?

READING.— I sat one evening, watching
 A little golden head
 That was nodding over a picture book;
 And after a while I said:
 "Come, darling, you are sleepy;
 Don't you want to go to bed?"
 "No," said she, "I am not sleepy,
 But I can not hold up my head.
 Just now it feels so heavy,
 There isn't any use;
 Do let me lay it down to rest
 On this picture of Mother Goose!
 I will not shut my eyes at all,
 And so you need not fear;
 I'll keep them open all the while
 To see this picture here."

Write ten questions such as you would give a pupil in order to bring out
 thought in the above selection. 10 points, five each.

Read a selection to be marked by the superintendents.

50

ANSWERS TO PRECEDING QUESTIONS.

ing to the large space given to the proceedings of the State Association,
 answers to questions are omitted this month. We make room for the fol-
 g, however:

R. EDITOR—The answer to the 4th history question in the Dec. issue of
 Journal is evidently answered by a Republican, but whether true in state-
 or not, the answer does not fit the question. The question is, 'What po-
 parties were in existence at the time of Lincoln's first election? Wha-
 ich advocate?' The answer talks about the war and what happened du-
 the war, when there was no war at the date referred to.
 correct answer would be: There were three political parties at this time.
 e Constitutional Union party, with John Bell as its presidential candidate.
 a continuation of the American or Know-Nothing party, but had at this
 dropped, in most of the states, the know-nothing feature, but held to the
 al doctrine of naturalization and immigration. It was non-committal on
 every question.

The Democratic party, which was divided on the question of slavery in the
 ories. Both branches believed in letting slavery alone in the states where
 sted, both believed in the fugitive slave law, and both advocated the ac-
 ion of Cuba. The Southern branch, led by John C. Breckinridge, took
 round that a citizen of a slave state could take his slaves into any other
 or territory and hold them while there, and could permanently reside in a
 ory and hold them. The Northern branch, headed by Stephen A. Douglas,

advocated "squatter sovereignty"; i. e., that the citizens of each territory should decide the slavery question for themselves, and that Congress should not interfere one way or the other.

3. The Republican party, headed by Abraham Lincoln, insisted that slavery was the creature of state law, and could not exist out of its own state; that the normal condition of the territory of the U. S. is freedom, and denied the right of Congress, or a territorial legislature, or an individual to establish slavery there.

Outside the slavery question there was no radical difference between the Democratic and Republican parties. The split in the Democratic party made the election of Lincoln possible."

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GABCO, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

QUERIES.

239. A merchant sold 20 stoves for \$180. He received \$19 for the largest size, \$7 for the middle-size, \$6 for the smallest size. How many stoves of each size did he sell? (Ind. Comp. Arith., p. 284.)

240. A gentleman in St. Louis obtained letters of credit from Seligman & Co. In Paris he drew 1500 francs, and in London £100; what did it cost him if exchange in Paris was $\frac{1}{2}\%$ premium, in London 1%, and gold was worth \$1.10? A franc being equal to 19.3¢ and a pound \$4.87. (Ind. Comp. Arith., page 245.)

241. Sold sugar at $2\frac{1}{2}\%$ commission, and after deducting my commission I invested the remainder in flour at $1\frac{1}{2}\%$ commission. What did I get for the sugar, if I bought flour to the amount of \$16.75? (Ind. Comp. Arith., p. 204.)

242. A debt of \$900 is to be paid in three equal annual installments, interest 6%. What are the payments?

JACOB S. KAUFMAN.

243. Liberty belonged to them as men. Parse *as* and *men*.

C.

244. On page 11, January Journal, is the statement that "English nouns have no case at all." Are all our grammatical authors in error? Is Gould Brown a "grammatical grind"? Will the author of the above statement please reply?

MANY TEACHERS.

ANSWERS.

232. Clark's Spheroid for 1878 gives dimensions of the earth: $a = 3963.296$ miles; $b = 3950.738$ miles. Then the volume $= \frac{4}{3}\pi a^2 b$. If the earth were a sphere its volume would be $\frac{4}{3}\pi r^3$, and if the average density of each were the same these two expressions would be equal. $\therefore r = \sqrt[3]{a^2 b} = 3959.106$ mi., and the diameter $= 7918.212$ mi.

J. B. SHAW, JR.

Elmer E. Carter, Elwood, Ind., gets 7912 mi.

233. Supposing the axis of the sun to be perpendicular to the plane of the

tic, the synodic time of the spot will be 29 days, in which time the earth has gone $1\frac{1}{4}\frac{1}{4}$ of a revolution. Hence in 29 days the spot has performed $1\frac{1}{4}\frac{1}{4}$ rotations, and it will complete a revolution in 26.8 days nearly. ED.

4. No answer received.

5. By the death, resignation or expulsion of both its senators, and by the vote of a state to elect or appoint their successors. C.

6. The areas exchanged by A and B are similar right-angled triangles: the one given by A is twice that given by B. Then $a^2 = 2b^2$, and $a + b = 23$. $\therefore b = 9.5269$ rd., if a and b are the distances of the boundary line from the sides of the rectangle. THOS. HALLETT.

7. A compound sentence is a sentence which consists of two or more simple ones, either expressly or tacitly connected. GOULD BROWN.

8. Very readily we have: $r\sqrt{2} + r = 10$, if r = radius of required circle. $r = 10(\sqrt{2} - 1) = 4.1421356$. EDGAR WHITE.

9. Completing the cone and considering the added part as additional water and the radius of the required ball to be 3.1 inches, thus: The radius of the inscribed ball is easily found to be 3.6 inches. Then we have the proportion, The radius of the cone less the inscribed ball : the water : : $(3.6)^3$: $(Ans.)^3$.

$\therefore Ans. = 3.1$ very nearly.

ED.

CREDITS.

A. A. Throck, 222, 25, 29, 31; Elmer E. Carter, 232, 36, 37, 38; Jacob M. Albright, 226; Thomas Hallett, 236, 38; J. B. Shaw, Jr., 232, 33, 36, 38; Edgar White, 236, 238.

Let us have a few crisp new queries for next month. Send in the difficulties you meet with in the school-room.

MISCELLANY.

AMILTON Co. held a *big* joint-institute January 25. It paid.

THE N. IND. TEACHERS' ASSOCIATION will meet at Columbia City the first week in April, I *think*.

LINTON Co.—The Frankfort *Crescent* sustains an excellent "educational column." It well repays teachers to read such columns.

INDIANA UNIVERSITY celebrated its *seventieth* anniversary as foundation day. The principal address of the occasion was by D. D. Banta, an early graduate.

COLUMBIA CITY has a fine new school building, containing all the modern conveniences. The citizens have reason to be proud of it. W. C. Palmer is the controlling spirit.

THE S. IND. TEACHERS' ASSOCIATION will convene in Aurora, March 26, 27, 28. The program will be given next month. Aurora will try to make every *glad* that comes, and the attendance should be large.

LAKE CO. held its Institute New Year's week, with George F. Bass as chief instructor. This county contains more than ordinary local talent, and Supt. Cooper wisely uses it. Mr. Bass makes a flattering report of superintendent and teachers.

DAVISS CO.—The "Holiday Announcement to Teachers," by Supt. P. R. Wadsworth, contains as much good suggestion and good sense as any document of the kind we have seen. He speaks in commendable terms of most of the work in the county.

THE INDIANAPOLIS BUSINESS UNIVERSITY, located in the When Block, has just issued a very attractive "red line" annual catalogue. It is seldom a manual is issued in such expensive style. It indicates the prosperity of the school. Sent free on application to E. J. Heeb, manager.

HUNTINGTON CO.—Supt. Kline has issued a circular giving "the facts and figures" of the attendance in his county. He gives the names of all the teachers, with the enrollment and the enumeration of children in every district. The footing up shows a little more than 67 percent of the children enrolled.

WHITLEY CO.—The County Institute was held Christmas week, with R. G. Boone and W. H. Mace as instructors. It is needless to add that the best of work was done, and that it was highly appreciated. Supt. Knisely is one of the most indefatigable workers in the state and never does things by halves.

STARK CO.—The following, from Co. Supt. W. B. Sinclair, is what we call a cheerful word: "*Dear Sir:* Accept thanks for our books, which you have so generously presented, (premium for 100 percent of teachers as subscribers). We have now a library of 100 volumes to start on.

We had an Association Dec. 20-21. All teachers present but four, and they were prevented by sickness. All of our teachers are taking Reading Circle work and are moving on vigorously in the line of successful Pedagogy."

LA PORTE CO. Teachers' Association was held January 18. Attendance 108. Subjects for discussion: "County Fair Exhibits"; "The Conscious Use of Psychology in the Process of Teaching"; and "Study." The interest was excellent. Supt. Galbreath is rapidly bringing the schools of this county up to the highest standard.

The manual for this county shows system and thought on the part of Supt. O. L. Galbreath. The excellent sectional and township map is a valuable addition. This county provides for a post-graduate course of two years. That is, after a person has taken the regular course laid out for the county schools, pupils can continue two years longer and prepare at home, to enter the third year of the high school course. If any other county has taken this step the Journal has not heard of it.

THE N. IND. SUPTS. CLUB held its second meeting in Goshen, December 13. Several important topics were considered. J. C. Black sent a good report, but the Journal can only make room for the following: "In considering the topic, 'State School Book Legislation,' it was decided not to consider the present

or books, but the principle involved in state uniformity and free text-books. The superintendents were a unit in the opinion that state uniformity, in the sense that the same books must be used in all the schools of the state, is detrimental to the best interests of the schools, because the conditions of the schools are not, and from the nature of our school system can not be the same. After considerable discussion of the free text-book question, the superintendents reached the conclusion that school officers should be given the power to purchase the books and loan them to the children. Such a system would secure, in effect, uniformity, because a child in moving from one school corporation to another, would not have to purchase a new supply of books. It would at the same time give each corporation the power to purchase those books which in their judgment of its officers are best suited to the existing conditions of its schools."

HINTS FOR TEACHERS.—A paper of 20 pages, by William J. Rolfe. A copy of this valuable pamphlet will be sent *free* to any address on application. It is of special interest to teachers of English literature. Address W. J. Button, 255 Wabash Ave., Chicago, Ill.

THE INDIANA NORMAL COLLEGE, at Covington, reports good work and rapid growth. W. R. Humphrey is principal.

PERSONAL.

C. D. Berry still holds the reins at South Wabash.

A. J. Smith is in charge of the schools at Hobart, and the schools are glad to have him.

P. H. Kirsch, former Supt. of the Franklin schools, is principal of an academy at Albany, Ky.

B. F. Moore still continues in charge of the schools at Monticello. His "manual" indicates thoughtful, logical work.

C. M. Carpenter, a graduate of the State University, is the new Supt. of the schools at Bloomington, in place of Miss Margaret McCalla, resigned.

Pres. D. S. Jordan and Prof. J. W. Jenks, of the State University, propose to take a party on a European trip next summer. Write for particulars.

J. W. Jay, ten years Prin. of the Pennville schools, is serving his first year as principal at McCordsville. He will open a Normal in connection with his school March 28.

Charles Dolan, principal of the high school at Mishawaka, has been elected superintendent of the Ligonier schools, to fill the vacancy caused by the death of Ambrose Blunt.

W. N. Hailman, judging from various reports, did excellent work for the Massachusetts State Teachers' Institute during the holiday week, and his efforts were highly appreciated.

E. E. Higbee, D. D., LL. D., for nearly nine years Supt. of the schools of Pennsylvania, recently died suddenly of paralysis. He was one of the leading educators of the country.

G. W. A. Luckey is still principal of the schools at Ontario, California, and the local press speaks in high terms of his success. Mr. Luckey and his good wife have many Hoosier friends who remember them kindly.

Gilbert L. Pinkham, formerly a leading teacher of Marion county, Ind., and for several years past Prof. of English Literature in the Iowa State University, is the first State Superintendent of South Dakota. He still has many warm Indiana friends.

Hiram Hadley, well and favorably known in Indiana, is the first President of the new Agricultural College established at Las Cruces, New Mexico. The Journal extends to Mr. Hadley hearty congratulations, and has great confidence in his ability to make the college a success.

Miss Mary E. Nicholson, principal of the Indianapolis Training School, requires her pupils to construct relief maps, that they may know just how to teach the same. Some of this work done by pupils is superior to anything of the kind the editor has ever seen in any of the national exhibits.

W. H. Caulkins, as announced last month, has received a government appointment. In a letter stating that he will soon resign the office of Superintendent of Tippecanoe county, he says: "I have devoted twenty-eight years of the best part of my life to the public school work. I have enjoyed the work, and I leave it with great reluctance, but I am forced to the realization of the fact that I am just twenty-eight years *behind* in the struggle for the where-with-all necessary to keep the "wolf from the door" in my old age. I hope I may be permitted to remain a member of the State Teachers' Association so long as I live. And the dear old Indiana School Journal! For twenty years past I have not missed a number! Continue to send it. We can't keep house without it."

Mr. Caulkins was appointed County Superintendent August 1, 1874, and has been appointed eight times since then, making *nine* terms in succession, and in all that time but *one* vote has been cast against him. There are 13 trustees, always divided *politically*. On Christmas 1880 he received an elegant \$150.00 gold watch as a present from all the teachers of the county, which he says he prizes above all things except his wife and babies.

J. C. Black, Supt. at Michigan City, has just passed through an unpleasant experience at Logansport, his late home. It seems that Mr. Black was elected superintendent at Logansport in June, while his predecessor's time did not expire till the following September. Mr. Black entered upon his duties at once, and later claimed pay for his summer's work. The board paid a part but refused the remainder. Last June, when Mr. Black was leaving Logansport, he refused to pay to the board certain monies collected by him as tuition from non-resident pupils, until this claim was settled in full. The present board claimed that it had not incurred the obligation and would not pay it.

When Mr. Black moved he left the tuition money in a Logansport bank. Later some member of the board went before the grand jury, and giving only a part of the facts, secured an indictment against Mr. B. for embezzlement. When the trial came on the indictment, it took the jury less than five minutes to return a verdict of "*not guilty*."

When the indictment was secured one local paper out of four stated simply that J. C. Black had been indicted for embezzlement, without giving both sides of the case. The paper containing this wickedly unfair statement was *marked* and sent to prominent educators over the state. The Journal received one. When the trial was over and the fact published that Mr. Black had been honorably acquitted, the execrable traducer of character that mailed the first papers did *not* mark and send out other papers to correct as far as possible the first damaging statement.

The Journal has no opinion to express as to Mr. Black's claim. That is purely a private matter between him and the board, but the attempt to blacken the character of an honorable man simply because of difference of opinion as to the justice of a little money claim, is simply *hellish*.

No Superintendent in the state sustains a higher moral character than does James C. Black.

BOOK TABLE.

OUR DUMB ANIMALS should be in every family. For sample copy address Geo. T. Angell, Boston, Mass.

THE NEW ENGLAND MAGAZINE (Boston) for January is full to overflowing with articles of unusual interest.

THE MUSICAL TELEPHONE is the name of a little paper printed at Williamsport, Ind., by S. C. Hanson, author and publisher of "*Merry Melodies*."

THE CENTURY, published in New York, is the great literary magazine of this country. It has an excellent corps of contributors, and leads all others in point of circulation.

SCHOOL AND HOME, of St. Louis, is a paper intended for pupils, teachers and parents, and is an excellent paper of its class. It contains something for every member of the family.

THE INDIANA FARMER, published at Indianapolis at \$1 a year, is a valuable paper for farmers and others interested in farming. Farming is growing to be one of the learned professions.

THE LADIES' HOME JOURNAL, published at Philadelphia at \$1.00 a year, is what its name indicates, and is a good magazine to have in the home. The copy on our table is a very attractive one.

SANTA CLAUS is a new weekly paper for boys and girls, published in Philadelphia at \$2.00 a year. It is bright and cheerful and will carry joy wherever it goes. It ought to be in a thousand Indiana homes.

NUMBER 43 of Riverside Literature Series contains "*Ulysses Among the Phæacians*," from Bryant's translation of Homer's *Odyssey*. This excellent series is published by Houghton, Mifflin & Co., of Boston.

HARPER'S ADVANCED ARITHMETIC: *By John H. French. New York: Harper & Bros. W. J. Button, Chicago, Western Agent.*

The author of the above many years ago marked a new departure in teaching arithmetic, when his series of arithmetics was first published. Later he prepared "Harper's Graded Arithmetics," a series of much merit. His last, and perhaps his best work, is the above, which was completed only a short time prior to his death. It embodies the experience of a long life of close observation. It is at once scholarly and complete, embracing the whole science of arithmetic.

ELEMENTS OF COMPOSITION AND RHETORIC: *By Virginia Waddy. Cincinnati: Van Antwerp, Bragg & Co.*

The above is one of the best books of its class that has come to our table. It is a simple treatise, sufficiently elementary to be used in the lower grades of high schools, and is comprehensive enough to include all the teaching principles of rhetoric. It is copiously supplied with exercises in both criticism and construction. The subject treated is one of growing interest, and the book should be seen by every interested teacher.

THE ART OF CONVERSATION, and Treatises on other Subjects: *By Harriet E. Monroe. New York and Chicago: A. S. Barnes & Co. Cyrus Smith, Indianapolis, Agent for Indiana.*

This book treats a variety of subjects, not learnedly, but in a suggestive way that will be helpful to students and young teachers. Among the subjects treated are Essay Writing, Subjects for Essays, Development of Character, Chapel Exercises, Chapel Talk, How, what, and when to Read; The Right use of Books, Conversation, The Voice, Subject-matter, Suggestions, etc.

TO THE LIONS: *By Alfred Church, A. M. Boston: G. P. Putnam's Sons.*

This is a story of the early Christians. The church described is the church at Nicæa. In a simple but attractive manner, the author has depicted the persecutions to which the early Nicene Christians were subjected from the ignorant populace as well as from the tyranny of a pagan government. This persecution embraces the most cruel torture, even to the fighting with wild beasts in the amphitheatre at Ephesus. While the author makes the tale of suffering for Christ's sake very real, he also makes the wonderful endurance that the love of Christ inspires equally real and strangely beautiful.

MEMORY—WHAT IT IS AND HOW TO IMPROVE IT: *By David Kay, F. R. G. S. New York: D. Appleton & Co.*

This book belongs to the International Education Series, edited by Dr. W. T. Harris. The author starts with the generally conceded principle that memory is the faculty of the mind that is most dependent upon physical conditions. Therefore, in his discussion of what memory is he treats at some length the entire nervous system, showing how the nerves communicate between the senses and the brain. He says memory is not simply an intellectual faculty having its seat in the brain, but is in a great measure a sense faculty including the senses, the voluntary muscles, and the other parts of the body. The first requisite to a *good* memory, the writer says is sound physical health with all the functions of the body going on easily and naturally. Various aids for improving and strengthening the memory are given, which are worthy the careful consideration of every one.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Newer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

J. W. JAY, who has had much successful experience, will open a Normal at McCordsville March 28. An excellent chance for teachers. 2-11

WANTED—Kindergarten teachers for the South and Southwest. Registration fee \$2. American Bureau of Education, 32 Cole Building, Nashville, Tenn. 2-1

GENTLEMEN desiring profitable employment during the coming vacation, or to take a permanent engagement, will find it to their interest to correspond with the American Collecting and Reporting Association, B. A. Bullock, Manager, 4½ East Washington St., Indianapolis, Ind. 2-2t

ANY superintendent or teacher desiring *pleasant and profitable* employment could do well to investigate SMITH'S AMERICAN MANIKIN, for schools and physicians, pronounced THE BEST by every educator and physician to whom it has been shown. Address, WRIGHT PUBLISHING HOUSE, Indianapolis, Ind.

IMPORTANT TO TEACHERS.—The old reliable Koerner Business College will open a Normal School of Penmanship this Spring and Summer for the special benefit of teachers. A Penman of national reputation has been engaged, which will insure the highest order of instruction. The student will in a comparatively short time be fitted for a profitable occupation, for which there is a very great demand. Do not fail to write for particulars. Address C. C. Koerner, President, Indianapolis, Indiana. 2-2?

THE LADY OF THE LAKE, complete, with notes, is running in the Standard Literature Department of THE WEEK'S CURRENT. It began January 1, and will be complete in March, to make way for Macbeth. Twenty copies of the paper, all to one name, will be sent from Jan. 1, during the continuance of the poem, for only 20 cts. per copy; Ten copies for 25 cts. per copy. A rare chance to get the poem for supplementary reading, to say nothing of the news presented. Address THE WEEK'S CURRENT, Oak Park (Chicago), Ill. 2 it

CINCINNATI, WABASH AND MICHIGAN RAILWAY—*The Elkhart Line*.—Three Through Trains Daily (except Sunday), between Indianapolis and Benton Harbor. Direct connection at Benton Harbor for Grand Rapids, Muskegon, and all Michigan points, and for Chicago via the Detroit & Cleveland and Graham & Morton boat lines. About May 20th we will put on a line of new Combination Sleeping and Chair Cars on night trains between Indianapolis and Grand Rapids; also a line of Chair Cars on day trains. For time of trains, rates, etc., see any ticket agent, or J. B. HARTER, General Agent,

E. H. BECKLEY, G. P. & T. A., Spencer House, opposite Union Depot, Elkhart, Ind. 2-tf Indianapolis, Ind.

CATARRH—Catarrhal Deafness, Hay Fever.

A NEW HOME TREATMENT.—Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 837 and 839 West King Street, Toronto, Canada. Sufferers from Catarrhal troubles should certainly read the above.—*Christian Advocate*. 1-1y

TEACHERS WANTED.

We want teachers for the hundreds of good positions now coming in for the Fall term. 1. We have placed nearly 2,000 (two thousand) teachers since we began work. 2. On application we send you a list of part of these, and sufficient to prove that our claims are as we represent them. 3. We also send hundreds of testimonials to our work which have been written in the year 1890, and many from teachers of your personal acquaintance. 4. We place more teachers in states west of New York than all other agencies together. There is no other agency that has ever made the claim that it has placed one teacher to our fifty in states west of New York, and we by actual giving of the places filled prove our claim. Some of the

HUNDREDS OF LETTERS RECENTLY RECEIVED.

From DIO McLAREN, M. S. B. B., *Prof. Nat. Hist. Maryland Ag'l College.*

While a graduate student at Johns Hopkins University I was elected teacher of Biology in the Indianapolis, Ind., High School through the information and help of Mr. O. Brewer. I commend his services to any teacher wishing to hear of vacancies.—Jan. 6, 1890.

From FANDIRA CROCKER, *Teacher of English, Winona H. S., Winona, Minn.*

My relations with the Association have been the pleasantest possible, and through its means I have obtained an excellent and agreeable situation.—January 6, 1890.

From MARY M. ROSE, *College of Teachers of Univ. Place, N. Y. City.*

My own experience as a member of your Association makes it a pleasure for me to recommend you to others.—Jan. 6, 1890.

From MARY S. KINGSLEY, *Preceptress State Normal School Mansfield, Pa.*

My present position was secured to me through the Teachers' Co-operative Association. No teacher need hesitate to avail himself of its privileges.—January 10, 1890.

From S. A. LEWELLEN, *Principal of Schools of Waitsburg, Wash.*

I am indebted to the Teachers' Co-operative Association for the most fortunate step in my career as a teacher.—Jan. 6, 1890.

From F. A. CALDWELL, *Prin. of Belleview Coll., Belleview, Marion Co., Fla.*

As a teacher, I can speak personally of its advantages, and shall certainly apply to it for any teachers needed in our own College.

From M. ADELAIDE HOLTON, *Prin. Training Dept. State Nor., Madison, S. Da.*

It gives me pleasure to state my personal knowledge of the Brewer Agency. I joined this agency stating clearly my line of work and sending copies of testimonials. By return mail I received notice of four Normal School vacancies. I sent application and was immediately appointed here, where I now receive one thousand dollars salary.

I consider it of great advantage to any good teacher to be a member of this agency.—Jan. 3, 1890.

From E. E. BLANCHARD, *Supt. City Schools, Rock Rapids, Ia.*

From actual experience I can testify of the reliability and promptness of the Teachers' Co-operative Association. Any recommendation coming from that source is good with us.—January, 1890.

From D. KAERCHER, *Prof. of Language, Milton Academy, Baltimore, Md.*

Through the efforts of the Teachers' Co-operative Association I received a good position. I also received favorable replies from two other fine places. In my case the Association did even more than I had anticipated.—Jan. 1, 1890.

From GEO. S. FISHER, *Supt. Schools, Deadwood, S. Dak.*

For the last ten years I have been a member of some teachers' agency. For

the last three years a member of the Teachers' Co-operative Association, under the management of Mr. Orville Brewer, 70 Dearborn St., Chicago, Ill. I do not hesitate to say that Mr. Brewer's Agency has rendered me greater service than any agency to which I have belonged. Mr. Brewer renders the teacher that kind of assistance for which commission on salary is inadequate remuneration.—January 1, 1890.

From A. H. KNAPP, *Prin. Florida Academy, Florida, N. Y.*

Last year I registered with the Teachers' Co-operative Association and as a result of its untiring energy and faithful efforts I was elected to the position I now occupy.—Jan. 6, 1890.

From F. S. ROSETER, *Supt. City Schools, Hiawatha, Kan.*

I have been a member of the Teachers' Co-operative Association for several years and expect to continue my membership. I have always found the Association to be energetic, wide-awake, thoroughly reliable, and decidedly efficient. I know of none better.—Jan. 1, 1890.

P. CUSHING, *Vice-Prin. Holyoke High School, Holyoke, Mass.*

Your agency has opened for me a road to rapid advancement. You gave me more satisfaction in a month than other agencies offered in seven years.—January 7, 1890.

EDW. P. ANDERSON, *Prof. Eng. Lit. and Mod Lang., Ag'l College, Mich.*

I believe that the Teachers' Co-operative Association is capable of giving valuable assistance to worthy men. Retiring scholars, busy with their books or specialties, have neither time nor money to spend in travelling about the country to find the places best suited to them. The Association places at their service eyes and ears that are almost omnipresent, instead of the limited field of observation that can be inspected for places by themselves and their busy friends. "The world is all before them, where to choose." I can speak from experience and am glad gratefully to acknowledge that I have been directed to more suitable places, and that my salary has been more rapidly increased since my connection with the Association than before.—Dec. 25, '89.

D. DENNIS, *Prin. Park Academy, Park City, Utah.*

Through your influence I secured my present position, which is a very pleasant and profitable one. Many of my friends have received positions through your agency, and they one and all speak of you in terms of the highest praise.—January 3, 1890.

A. H. KEYES, *Prin. Public Schools, Stonington, Conn.*

I have found the Teachers' Co-operative Association of Chicago very active in the work of helping teachers to better positions; it has the western energy, push, and activity that will secure a good position for a teacher, if it lies within the power of any agency.—Jan. 8, 1890.

J. S. CORNWELL, *Prin. High School, Parkersburg, W. Va.*

I regard the Teachers' Co-operative Association as second to no Teachers' Bureau in the country. About the time I registered with you I also registered with two other prominent Bureaus. I have been elected to two positions through the Association before getting even a notice of a vacancy from the other two.—January 11, 1890.

L. B. WILSON, *Teacher Mathematics, High School, St. Paul, Minn.*

The Teachers' Co-operative Association has no nonsense about it. Honest purpose, Yankee foresight, and business push have characterized all its dealings with me.—January 6, 1890.

Now is the time to register while we have only a few members and have plenty of time to become acquainted with your work. A registration now is worth three times one in July.

Send for our circulars and large Manual, which we furnish free of charge.

Address, **TEACHERS CO-OPERATIVE ASSOCIATION,**

ORVILLE BREWER, Manager. 70 & 72 Dearborn St., Chicago, Ill. 2-tf

FOR SEPTEMBER, 1890.—A few of the vacancies recently filled by us are in the following well-known institutions: University of Vermont; University of Western Pennsylvania; Illinois Wesleyan University; Kansas Wesleyan University; Hamilton College; Fort Worth University; Simpson College; State University of Colorado; Mt. Morris College; Eminence College; Gaylesville University; Searcy College; Pike College; Minneapolis Academy; Collegiate Institute, New Orleans. Besides these we filled vacancies in a large number of other Academies, Seminaries, Boarding Schools, Public Schools, etc., etc.

We are already in correspondence with employers who will want teachers next year. Don't fail to send for our circulars before registering elsewhere. Our business is *direct with employers*, and not "hearsay."

Address,

C. J. ALBERT, Manager,

2-tf

SCHOOL AND COLLEGE BUREAU, Elmhurst, Ill.

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page.

1-tf

SCHOOL TEACHERS, have you been paying a big price for rewards? Send 12 cents for samples of twelve large handsome cards. Would cost 25 cents at retail. The amount paid for samples will be deducted from first order amounting to 50 cents or over. Townsend & Royer, 175-S. Howard St., Akron, O. 1-tf

THE Manager of the School and College Bureau, Elmhurst (Chicago), Ill., is daily at his post of duty, daily recommending teachers for good places, daily hearing of good results, daily sending out fresh letters of inquiry to schools and colleges. If you expect to locate elsewhere, either now or next September, the present is a good time to open correspondence with him. Address,

1-tf

C. J. ALBERT, Manager, Elmhurst, Ill.

A NEW METHOD OF TREATING DISEASE.—Hospital Remedies.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specific used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include diseases of the lungs, kidneys, female weaknesses, rheumatism, and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, have ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors

1-ly

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SPRING TERM, 1890.

Special classes will be formed in the Preparatory Department of Purdue University, for the term beginning March 24, 1890, and lasting eleven weeks. It is the purpose of these special classes to afford to students the opportunity of devoting themselves exclusively to the preparatory work in which they are deficient, and thereby enable them to enter the regular classes of the University in September, 1890. Instruction will be afforded in each of the common English branches as may be necessary, and also in advanced Grammar, Elocution, Physiology, Geography, Physiology, Higher Arithmetic, Algebra, and Industrial Drawing. The University is open to both Ladies and Gentlemen. Matriculation and incidental fees \$5.00 per term. Board can be obtained at very reasonable rates. Applications to enter the Preparatory Class, or to take this special work, should be addressed to DR. ERASTUS TEST, LA FAYETTE, IND.

A catalogue containing full information in regard to Purdue University, its departments, courses of study, terms of admission, etc., will be sent free on application to

2-21

J. H. SMART, President.

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THE short route from Indianapolis to St. Louis, and it affords superior accommodations for all classes of passengers. The day coaches are kept clean and elegant parlor-cars with easy sofa chairs and Pullman dining and sleeping-cars are run on through trains daily, and for the convenience and comfort of local travel between Indianapolis and St. Louis a local sleeper is run, which is opened to receive passengers at the west end of Union Station any time after 8.00 P. M.

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For detailed and particular information regarding rates, time of trains, etc., call upon or address,

H. R. DERING,

Ass't Gen'l Pass. Agent Vandalia Line,

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2-21

Indiana Normal College

COVINGTON, IND.

THE SPRING TERM OPENS APRIL 1, 1890.

From the rapid growth of this school, and from the splendid work that is being done, we believe that we are safe in making the claim that no better similar institution can be found. The expenses are as low here as at any other school, and we desire persons to investigate the workings of our Normal before going to any other school.

COURSES OF STUDY.

Common School Course, Teachers' Course, Scientific Course, Philosophical Course, Classical Course, Elocution Course, and Penmanship Course. While we advise the student to enter a course suitable to his advancement, we give him perfect liberty to take a purely elective course. Diplomas are awarded in all regular courses except the Common School Course.

REVIEWS AND HIGHER STUDIES.

To persons who desire to review in any branch, or to begin the study of higher branches, our school offers special advantages. Three to four classes are organized every term in Arithmetic; three in Algebra; two in Grammar; one in Physiology; one in U. S. History; two in Vocal Music; two in Elocution; one in Geography; one in Spelling; two in German, and two in Penmanship. In addition to these we have other classes in the Sciences, Higher Mathematics, and Language.

SPECIAL STUDIES.

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WHEREAS, The text books in geography submitted by the Indiana School Book Company, consisting of an elementary geography and a complete geography, are in the judgment of this Board of School Book Commissioners, fully equal in size and quality as to material, matter, style of binding and mechanical execution, to the Eclectic Series of geographies named in section 1 of an act entitled "An act to create a Board of Commissioners for the purpose of securing for use in the common schools of the State of Indiana, a series of text-books, defining the duties of certain officers therein named with reference thereto, making appropriations therefor, defining certain felonies and misdemeanors, providing penalties for violation of the provisions of said act, repealing all laws in conflict therewith, and declaring an emergency."

Resolved, That the bid presented by that company be accepted, and that a contract be entered into with the said Indiana School Book Company to furnish these text-books in geography in accordance with the terms of the law, and the supplementary proposals contained in the note accompanying the bid, as follows:

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Resolved, That the bid of said company be accepted and a contract be made with said company in accordance with the law aforesaid.

WHEREAS, In the opinion of this Commission the series of readers known as the Indiana Educational Series, and offered in the bid of the Indiana School Book Company, are equal in size and quality as to matter, material, style of binding, and mechanical execution to the Appleton series named as a standard in the law above quoted:

Resolved, That the bid of the Indiana School Book Company be accepted, and the aforesaid series of readers be adopted and a contract be entered into with the said firm to furnish said books for the use of the schools of Indiana.

The above resolutions were adopted by a practically unanimous vote. The following members of the Board were present and voted:

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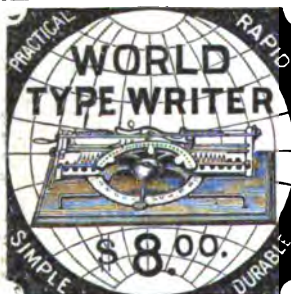
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INDIANA SCHOOL * JOURNAL.

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INAUGURAL ADDRESS—SECULAR EDUCATION.*

J. A. ZELLER.

THE evil which seems most to threaten us is the tendency toward false or disproportioned emphasis. To see things in their proper proportions is a rare gift of genius. Criticism is rarely conservative. It magnifies the evils it would cure, and in the zeal of its advocacy emphasizes out of proportion the reforms that are really needed. There are two phases of this tendency that should be noted and carefully studied. On the one hand there are those whose zeal and ability can not be doubted, who over emphasize the dangers of secular education, and see no remedy for our social evils except in denominational control. Starting out with substantial agreement with Guizot that, "in order to make popular education truly good and socially useful, it must be fundamentally religious," and with Cardinal Gibbons that "religious and secular education of our children can not be divorced from each other without inflicting a fatal wound upon the soul," they are seized with alarm and finally join in the hue and cry of the enemies of our state education and denounce the public schools as "infidel and godless," asserting that our "children in attendance upon them are subjected to the danger of corruption of morals and the loss of faith itself."

On the other hand, in our strong reaction against this recognized evil of ecclesiasticism, we place a false emphasis upon secularism as a means of averting the danger; and in our horror of sectarian bigotry, we are

* Read at the State Teachers' Association, December 25, 1889.

in danger of running headlong into refined but Godless paganism. This conservative position of Guizot and the Cardinal will not be controverted, nor is it necessary in vindication of the public school; but that the hue and cry against the system is a logical deduction from these propositions or a just inference from facts is denied; and this denial must be made good, if our public schools are to remain firmly fixed in the confidence of the people.

But even this is not enough. To maintain our denial of the charge, that because our schools are secular they are therefore corrupting to youth, is, after all, only a negative vindication. This adds no positive element of good. If our schools fail to secure that moral training in the principles and the practice of a virtuous manhood, so absolutely essential to American citizenship, it is condemnation enough and needs not the emphasis of gross charges to strengthen it.

Between religious dogma on the one hand and pure intellectualism on the other, there lies the broad field of moral training, too generally neglected or prosecuted irregularly and without system or definite purpose. The great need just now of additional emphasis upon this important part of our work must be my apology for introducing a subject so wanting in that peculiar interest that attaches to novelty.

The school is an institution of the state and we are her servants. Our educational responsibilities are subordinate to, yet coincident with, those of the state, and thus the responsibilities of the latter become the measure of our duty. At the outset, then, we are met with this question:

Is the state responsible for the moral training of its citizens, and if so, what are the means within its power and proper to be employed for discharging the duty which the responsibility imposes?

First of all, what is the precise meaning of the term State? Manifestly we do not mean that material thing called the state,—its territory and natural wealth, and whatever is added thereto by the enterprise and industry of man. What we mean is the political organism called the state—the whole body of the people exercising the function of self conservation and self-government. It is the body politic—not the body material, that in the proper sense constitutes the state.

The state is clearly responsible for the proper exercise of its natural and legitimate functions, and these functions must subserve the purpose of its existence. What the proper functions of the state are depends upon the end for which the state was brought into existence. We must

Now the latter before we can determine the former. What, then, is the purpose or end for which the state exists? Ultimately, it is the highest possible welfare and happiness of the people. But these must be sought through the development of the physical, intellectual, and moral life of the people; and these in turn, are conditioned upon the preservation and the development of the national life itself. Thus the latter become immediate or primary ends toward which the functional activities of the state must be directed, while these in turn, must be held subordinate to the ultimate end—the welfare of the individual citizen.

Herein, then, we find the fundamental basis of state obligation in the training of her youth. Its primary function must be exercised in providing the conditions of her own perpetuity and continuous development, and among these, training in morals must be regarded as preeminently essential.

This will become more apparent when we consider the relation of the citizen to the state, and the reciprocal duties which arise out of this relation. The relation of the citizen to the state will depend largely upon the character of the state itself. Citizenship under a monarchy is one thing,—citizenship in our American state is quite another. They are scarcely even analogous in their relation to the body politic. Monarchy is a slow outgrowth from roots imbedded in the soil of mediæval Feudalism,—chief among which are the Divine rights of Kings, Prerogative derived from custom, Hereditary power and privilege, and the political partnership of Church and State. These, tempered and liberalized by the spirit of civil liberty, have resulted after the slow modification of centuries, in the modern state of Europe. But civil liberty in Europe is still a concession rather than a fundamental principle, and political rights are exacted under duress,—a confession of weakness, not an idea of government. The old taint of Feudalism has not yet been entirely eliminated even from the most liberal monarchy of Europe. The relation of the citizen to the state is, therefore, that of simple loyalty to Hereditary power, recognized, because enforced. To the great mass of citizens there is but one alternative—obedience to irresponsible power or hopeless revolution.

Instead of these ancient outgrowths, self-government by the people has taken root in America. Here there is no power or authority that is not delegated, no restriction in freedom or restraint on personal conduct that is not self-imposed. The reason and conscience of every citizen, how-

ever humble, enters as a factor in that grand product which we call the state. The state is the organic expression of the intellectual and moral forces emanating from the people, and uniting to produce it. Behind all constitutions, legislative and administrative acts, lie these vital forces, determining their character, and shaping the destiny of the state for weal or woe. Whether it shall perpetuate its existence and continue to develop along the lines of its organic life, will depend upon the intelligence and the virtue of the people, whence these forces spring. There is then but one kind of allegiance which the citizen owes to the state; and that is his loyalty to the average reason and conscience which he himself has embodied in its constitution and laws,—an allegiance which can be practically manifested, only, by an intelligent and vigorous citizenship. And to provide beyond reasonable peradventure these essential conditions of perpetuity and growth, the state is pledged by the supreme law of necessity.

In emphasizing the state's responsibility in the moral training of its citizens, I wish, however, to employ the phrase with its full content, as including all that it necessarily involves. A brief analysis will reveal the mistake of excluding its intellectual element, as well as the blunder of assuming that intellectual training, as such, may be at the same time vicious or demoralizing. What do we mean by the term *morals*? Manifestly, it is something more than mere avoidance of those crimes against society, which, for its own safety, it everywhere recognizes and punishes. A man does not make good his claim to moral character by merely keeping out of the clutches of the criminal law. Nor is morality an enforced obedience to laws that have merely an external sanction. In the words of another, "there must be an active co-operation with the spirit of these laws, under the pressure of the sanction that resides in the will." He is the moral man who does right because he feels it to be right, and because the general good and not self only, will be served thereby; not because right doing is in the line of his selfish inclination, or because wrong doing entails punishment. When the ethical character of the contemplated act is perceived and, notwithstanding temptation to wrong doing, the right is chosen, and under the pressure of this inward sanction, it passes into the outward act, then it becomes moral in the true sense of the word. This raises conduct to the moral dignity of duty.

Moreover, it should be noted that the question, What is duty? is not one of mere feeling. Our duties grow out of our relations, our relations

our fellows, to our families, to society, and to God. These are often complex and involved; and thus it happens, that our vision of duty is often dim—or obscured. It requires the understanding as well as conscience, to disentangle the good from its involved relations, and to discern the right to be done, and the wrong to be shunned. Good impulses may often attend a vicious life, when allied to a weak nature. It follows from all this, that conduct properly called moral, has its intellectual as well as its purely moral conditions; that the judgment must unite with the conscience, as a factor in the product which we call morals; and this is equivalent to asserting that the culture of the intellect, especially on the side of the judgment, is an essential part of all true moral training.

And now, let us reach a definite conclusion in answer to our question by a brief summary of propositions:—

1. It is the duty of the state to exercise all its legitimate functions for the purpose of realizing the end of its existence.
2. This duty and responsibility extends to, and covers all the means necessary and adequate to this end.
3. In a government such as ours, the citizen sustaining to it the relation of creator and conservator, the moral life of the people conditions and finally determines the character and destiny of the state.
4. The moral training of the youth of the state is an essential means of developing the moral life of the future citizen; hence the state is bound, by the highest necessity, to employ this means to the end that the final purpose of the state may be realized.

Strictly speaking—the responsibility of the state for the moral training of its citizens covers the period of mature life, as well as that of childhood and youth. Life's tutelage does not end when the school-room closes upon us for the last time. The child is trained that he may act the part of a man, but it is only by acting the manly part that he becomes the more a man.

If it is the duty of the state to use the arm of the law to punish crimes that threaten the peace and safety of society, is it not under an equal obligation to encourage and stimulate the higher virtues which render crime exceptional, and its punishment certain? If it can be shown that the state may so employ its powers, then there can be no question as to the responsibility or duty. Are not industry, thrift, enterprise, and their natural outgrowths,—comfort, contentment and happiness among the conditions of social morality? To study and master their occult relation

to public morals, and to practically use these results in legislation and administration is the highest art of statesmanship.

Our concern at this hour is not, however, with affairs of statesmanship. Our duties, as servants of the state, whose responsibilities, for the time being have become ours, are limited to the period of school life, and are centered within the thousands of school-rooms, where the youth of the state are entrusted to our training. What is to be the moral outcome of it all? How shall we deal with a question which in turn so stimulates our enthusiasm, while it baffles our professional skill?

No one, however wise and profound, can furnish us with any rule or formula of method as an infallible guide in dealing with the moral nature of childhood: and none will be attempted here. There are, however, two essential conditions implied in our account of the term morals, which we would do well to fix in mind as objective points of our training; these are a discriminating judgment and an enlightened conscience. Both are more or less involved in every moral act—and our training must include within its scope both of these powers. Thought and feeling are alike—determining factors in the moral product. Unless the understanding unite with the conscience, there can be no decisive inner sanction, no moral imperative to which the will must yield in choice and action. Moreover we can not make our education a purely intellectual process, if we would; the intellectual inevitably involves the moral in every stage of its progress. They constantly act and react upon each other, as cause and effect, and no psychological insight can determine, often, which is the more potent element. Not only is it true that the moral feelings sooner or later become enlisted in all earnest efforts to acquire knowledge, but the very discipline and restraint which every good school necessitates is of itself a certain moral training. The school that educates at all, is a school of morals, as well. While it must be granted that our moral training is pointless, without system, and lacking in persistence, it is a foolish slander to assert that our education is corrupting to the public morals. Nay, more, we can take courage in the assurance, that defective as it is, the training of our schools is nevertheless in the direction of private and public virtue. I am aware that there are skeptics that deny all this. The very opposite has been boldly asserted, during the past year, by the highest ecclesiastical authority of England and America, and the attack is carried on with an ability and zeal that can not be passed by in silence without danger to our cause. While the answer to these charges can,

and will no doubt, be conclusively furnished, our most effective refutation must come from the school rooms of Indiana,—from the men and women trained and equipped within their walls. If these do not furnish the final answer, then there is an end to all debate, and the sooner the future of state education is confessed, the more hope for the future of our commonwealth.

But while this view of our school training may furnish a decisive answer to the grosser attacks upon our system, and at the same time serve as a stimulus to more earnest effort, we can not ignore the dangers that threaten us. These are not chargeable to the avowed enemies of our system. So intrenched is the public school in the general confidence, that an open attack is harmless. The danger is rather from self destruction. While the law may put a stop to murder it can not prevent suicide. It requires not the dagger or poison to end a human life; we need but to withhold the nourishment that feeds its vitality. That morals rest upon a religious basis can not be successfully denied, and any system of morals that does not assume the existence of God and moral accountability is nothing but a code for the prudent regulation of selfishness, and is entirely devoid of moral life. And here appears our greatest peril. Our modern culture is predominantly scientific and materialistic. Our philosophy tends strongly toward Agnosticism; and even our educational culture and professional training show traces of the same taint. On the other hand the religious culture of our day is away from sectarian theology, and so in our dread of religious dogmatism we are the more ready to join hands with Agnosticism in eliminating all religious elements from the moral culture of the school. We are in danger of losing sight of that fundamental distinction between the theology of a sect and the religious faith of the man,—a distinction that covers that broad field that lies between Atheism on the one hand and the Theology of the Church on the other, and which includes religious faith as the vital element of moral training.

The result of it all is sufficiently palpable. It is seen in the general movement to so modify our education as to furnish a complete national system of instruction from which all religious elements shall be eliminated. For this purpose all traces of Theism are being expurgated from our textbooks. One of our college presidents,—the author of a Political Economy for use in High Schools,—recently presented a copy to one of our

State Superintendents of Instruction, who promptly returned it with a note, stating that its first sentence would condemn it for use in the public schools. And what, think you, was the damning sentence? This: "The source of all wealth is the beneficence of God." Well did Ex-president Woolsey exclaim, "Shall it come to this, that not even the existence of the Supreme One is to be assumed in the schools?"

Over against this new and dangerous drift of thought, I would merely place the deliberate judgment of such men as Dr. Harris, the present head of our national Bureau of Education, who declares that "Faith is a secular as well as a theological virtue; that is to say, he who teaches that man is not immortal, and that matter does not reveal the Divine reason, teaches a doctrine subversive of faith, and also subversive of man's life in all that makes life worth living." I would prefer to adopt the view of that eminent founder of our present school system, Horace Mann, who said in one of his reports, "Our system of schools founds its morals on the basis of religion. It earnestly inculcates all Christian morals." So profoundly was he impressed with the importance of religion as the basis of moral training that he expresses doubt of the sanity of the man who should oppose the religious training of the young. I am content to leave this question of the importance of the religious element in the moral training with these eminent men.

In the meanwhile, we can not if we would, relieve ourselves of the responsibilities we are under to the Commonwealth of Indiana; and the intelligence and zeal with which we meet this responsibility must be the final test of our professional success.

BOYS WHO ARE WANTED.

[The following story will tell you what kind of boys are wanted in this world, what places they find, and what places they keep. There is no accident in this; no favor. It is the old way of being faithful to your word and your work. Read it to your school.—ED.]

"Well, I've found out one thing," said Jack, as he came in to his mother, hot, tired and dusty.

"What is that?" she asked.

"That there are a great many boys in the world."

"Didn't you know that before?"

‘Partly, but I didn’t know there were so many more than are wanted.’

‘What makes you think so?’

‘Because I’ve been round and round till I’m worn out, trying to find place to work. Wherever I go there are more boys than places. Doesn’t it show that there are too many boys?’

‘Not exactly,’ said his mother, with a smile. ‘It depends entirely on the kind of boy. A good boy is always wanted somewhere.’

‘Well, if I’m a good boy, I wish I knew where I’m wanted.’

‘Patience, patience, my boy. In such a great world as this is, with many places and so many boys, it is no wonder that some of them do find their places at once. But be very sure, dear,’ as she laid a caressing hand on his arm, ‘that every boy who wants a chance to do fair, honest work will find it.’

‘That’s the kind of work I want to do,’ said Jack. ‘I don’t want anybody’s money for nothing. Let me see—what have I got to offer? The schooling and all the wits I’ve been able to get up to thirteen years, good stout hands and feet, and a civil tongue.’

‘And a mind and heart set on doing faithful duty,’ suggested his mother.

‘I hope so,’ said Jack. ‘I remember father used to say: ‘Just as soon as you undertake to work for any one, you must bear in mind that you have sold yourself to him for the given time. Your time, your strength, your energy, are his, and your best efforts to seek his interests in every way are his due.’”

The earnest tone in which the boy spoke seemed to give assurance that he would pay good heed to the words of the father whose counsels would no more reach him.

For two or three days longer Jack had reason to hold to his opinion that there were more boys than the world wanted, at the end of which time he met with a business man who, after questioning him closely, said:

‘There are a great many applications for the place, but the greater number of the boys come and stay for a short time and then leave if they think they can do a little better. When a boy gets used to our routes and our customers, we want him to stay. If you will agree to remain for at least three years, we will pay you three dollars a week as errand boy.’

‘That is just what I want to do, sir,’ said Jack, eagerly. So he was engaged; and proud enough he was at bringing his wages home every

Saturday night, and realizing that, small as they were, the regular help was of great value to his mother.

It was not to be wondered at that the faithful carrying out of his father's admonition after awhile attracted the attention not only of his employers, but of others with whom he was brought into contact in the pursuit of his duties.

One day he was asked into the office of Mr. Lang, a gentleman to whom he frequently carried parcels of value.

"Have you ever thought of changing your situation?" asked Mr. Lang.

"No, sir," said Jack.

"Perhaps you could do better," said the other. "I want to get a boy who is quick and intelligent, and who can be relied on, and from what I see of you I think you are that sort of a boy. I want you to drive a delivery wagon, and I will pay you five dollars a week."

Jack's eyes opened wide.

"It's wonderful good pay, sir, for a boy like me, I'm sure. But I promised to keep on with Mr. Hill for three years, and the second year is only just begun."

"Well, have you signed a regular agreement with Mr. Hill?"

"No, sir; I told him I'd stay."

"You have a mother to assist, you told me. Couldn't you tell Mr. Hill that you are obliged to do better when you have a chance?"

"I don't believe I could," said Jack, looking with his straight, frank gaze into the gentleman's face. "You see, sir, if I broke my word to him, I shouldn't be the kind of boy to be relied on that you wanted."

"I guess you are about right," said Mr. Lang, with a laugh. "Come and see me when your time is out. I dare say I shall want you then."

Jack went home very much stirred by what had been said to him. After all, could it be wrong to go where he could do so much better? Almost double the wages! Was it not really his duty to his mother to obtain it, and to drive a wagon instead of trudging wearily along the streets? They never felt so hot and dusty as they did just now, when he might escape from the tiresome routine.

Might, but how? By the sacrifice of his pledged word. By selling his truth and his honor. So strongly did the reflection force itself upon him, that, when he told his mother of the offer he had received, he merely added:—

"It would be a grand good thing if I could take it, wouldn't it, sir?"

"Yes, it would."

"Some boys would change without thinking of letting a promise stand in their way."

"Yes; but that is the kind of a boy who, sooner or later, is not wanted. Because you have not been that sort of a boy that you are wanted."

"Jack worked away, doing such good work, as he became more and more accustomed to his situation, that his mother sometimes wondered at Mr. Hill, who seemed always kindly interested in him, never appeared to think of raising his pay. This, however, was not Mr. Hill's way of doing things, even though he showed an increasing disposition to employ Jack with important business."

"The boy trudged through his three years, at the end of them having been trusted far more than is usually the case with errand boys. He never forgotten the offer made him by Mr. Lang, and one day, meeting that gentleman on the street, ventured to remind him of it, telling him that his present engagement was nearly out, adding—
"You spoke to me about driving the wagon, sir."

"Ah, so I did; but you are older now and worth more. Call around and see me."

"On a Saturday afternoon soon after, Jack lingered in Mr. Hill's office while the other errand boys had been paid and had gone away."

"My three years are up to-night, sir," he said.

"Yes, they are," said Mr. Hill, looking as if he had remembered it.

"Will you give me a recommendation to some one else, sir?"

"Well, I will, if you are sure you want to leave me."

"I didn't know you wanted me to stay. But," he hesitated and then went on, "my mother is a widow, and I feel as though I ought to do the best I can for her; and Mr. Lang told me to call on him."

"Has Mr. Lang made you an offer?"

"Jack told him of what Mr. Lang had said to him nearly two years ago."

"Why didn't you go then?" asked Mr. Hill.

"Because I had promised to stay with you; but you wouldn't blame me for trying to better myself now?"

"Not a bit of it. Are you tired of running errands?"

"I'd rather ride than walk," said Jack, with a smile.

"I think it is about time you were doing better than either. Perhaps

you think you have been doing this faithful work for me through these years for next to nothing; but, if so, you are mistaken. You have been doing better work than merely running errands. You have been serving an apprenticeship to trust and honesty. I know you now to be a straightforward, reliable boy, and it takes time to learn that. It is your capital, and you ought to begin to realize on it. You may talk to Mr. Lang if you wish: but I will give you a place in the office, with a salary of six hundred dollars for the first year, with a prospect of a rise after that."

Jack did not go to Mr. Lang, but straight to his mother, with a shout and bound.

"You'r right, you'r right, mother!" he cried. "No more hard work for you, mother. I'm wanted, you see. Wanted enough to get good pay, and all the hardest part over."—SYDNEY DAYRE, in *Northwestern Congregationalist*.

MORALS MADE PICTURESQUE.

LIZZIE H. HAZELTINE.

THAT prince of educators, Dr. Mark Hopkins, has said, "Mere teaching without formative influence on character is simply a trade." An important question for all teachers to consider is how best to influence the pupil's character. No one rule or method will be sufficient. Varying characters must be carefully studied, good points observed and encouraged, while the powerful influence of a good example should be constantly at work.

Little talks to the whole school are helpful, but the constant iteration of good advice on politeness, diligence, honesty, and other needed virtues often falls without effect upon the child's mind. The seed should be winged with that which will waft it into the mind—an entrance for it must be forced if need be.

My pupils gave me a fountain pen at Christmas. Not long after I desired to press home a lesson on obedience. Choosing an opportune time, I said to them, "You all gave me a nice pen, which I value very much. I want to tell you one reason why I think so much of it. I had a pen before that would not work readily. It almost always needed shaking and fixing before it would make a mark. The pen you gave me does not do so. It is always ready to do its work just when I want it to. It is a very obedient pen. I want my scholars to be like my pen." Interest was at once aroused by the allusion to their gift, the value of obedi-

was by the illustration brought to their minds in a concrete shape, the lesson meant something to them.

The day an advanced class had found in their study about iron a table which interested them much, showing the comparative value of this useful metal when made into various articles. The following day I quietly walked to the board and wrote—

1 lb of bar iron. \$.04

1 lb of iron made into watch-springs 16,000

"That's what we had yesterday," remarked a member of the class with evident interest. A little questioning developed the thought that iron had been increased in value or improved. "But it wasn't done without a good deal of work," observed one boy.

To the other statements on the board I added—

Improvement is increase in value.

It is produced by labor.

This furnished a text from which a brief sermon was developed something like this: "You know I want you all to improve—to be worth more for coming to school. Your parents have invested thirty or forty dollars for your tuition, so you ought to be worth so much more at the end of the year. If you put in a generous share of your own work the increase in value will be still greater. Old iron is worth next to nothing, but it is not spoiled by misconduct the work you are doing."

Such little talks are not generally monologues, but lively conversations between the pupils and myself.

There are abundant materials for making morals picturesque and thereby effective. Let us treasure them and use them for the help of our pupils.

YOUTH BRITAIN, CONNECTICUT.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools.
He is also the author of several educational works.]

THE STRING OF TENS.

THE highest achievement of numeration in current arithmetic is the intellectual comprehension of the number ten. After this achievement, numeration consists merely in determining the relation of any given number to the standard ten. The stringing of ten beads of the same

color, and the efforts to relate any other numbers to this standard, constitute—therefore—a momentous step in numeration.

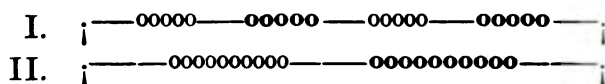
At first each number came to the child quite unrelated. He studied the four, the six, the eight as comparatively isolated facts, relating them *experimentally* to subordinate, yet for him equally isolated, facts—such as two, one, three, etc.

The work with the string of fives furnished the first easy “natural” standard to which all other numbers could be related in a systematic fashion. Four now became *five* less one; six, *five* and one; eight, *five* and three, or two *fives* less two, etc.

With the string of ten comes now the task of establishing a new standard, the conventional standard of ten. To this are to be related not only the numbers already studied, but all other numbers the child may be able to grasp. Four must now gradually assume the character of *ten* less six; six, that of *ten* less four; eight, that of *ten* less two. Twelve becomes *ten* and two; fifteen (formerly three fives), *ten* and five; twenty (formerly four fives), two *tens*, etc.

In the preparation of the string of fives the child received *several* fives of different colors for the sake of repetition, as well as for synthetic and analytic work on the basis of the standard number. Similarly and for the same purposes he receives now two tens—e. g., ten red and ten green balls.

Again, it will be observed that the child is already familiar with the resulting value of twenty as four fives; and that in stringing the form of twenty with which he is familiar (four fives), he used the same beads which he is about to use for the new form of twenty (two tens). The change that comes to him is, therefore, merely a change in arrangement. The two sets (fives) of red beads and the two sets (fives) of green beads in the old arrangement are in the new arrangement united, respectively, into one set of ten. This is illustrated in the following cut, in which the light rings stand for red and the black for green beads:



That these considerations are important must be evident even to the most resolutely “practical” among our teachers who smile automatically whenever they hear the words *principle* and *theory*. The new twenty comes to the child not as a new experience nor even as new knowledge, but only as a new form of knowledge. The four fives of the old numeration are merely translated into the two tens of a new numeration.

may be noticed, too, as a valuable fact, that in the new numeration number-forms as presented in the beads accord with the language as by which they are designated. Eleven appears, as in the language (= one + *lif* = ten), as one and ten; twelve (*two* = two + *lif* = ten), two and ten; thirteen as three (*thir*) and ten (*teen*); and so on up to twenty, which is two (*twen*, *twain*) tens (*ty*).

In the following illustrations the light rings stand for red and the black green balls.]

—00000000— ————00000000000—	11
—0000000— ————00000000000—	12
—0000000— ————000000000000—	13
—000000— ————0000000000000—	14
—00000— ————00000000000000—	15
—0000— ————000000000000000—	16
—000— ————0000000000000000—	17
—00— ————0000000000000000—	18
—0— ————00000000000000000—	19
— ————000000000000000000—	20

This fact is of very great value in enabling the child to refer results of operations readily and intuitionally to the fundamental ten. I shall illustrate this in a few typical examples.

For addition, I shall choose a few typical problems. In each solution given the successive steps under the letters a, b, c, etc.

$$3 + 4 = \quad .$$

a. Prepare the string; all beads (20) to the left:

—00000000000000000000— ————

b. Three beads to the right:

—00000000000000000— ————000—

c. Four more beads to the right:

—000000000000000— ————0000— ————000—

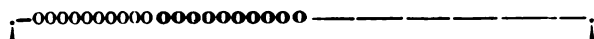
d. Unite, and read results:

—000000000000000— ————0000000—

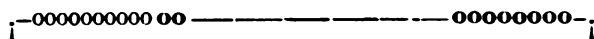
[Here is evident in the result the relation which the 7 bears to the 10 in which it is divided.]

2. $8 + 5 =$.

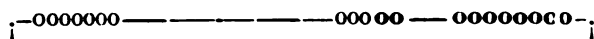
a. All beads to the left:



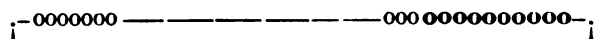
b. Eight beads to the right:



c. Five more beads to the right:

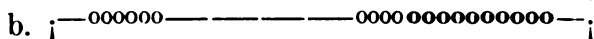
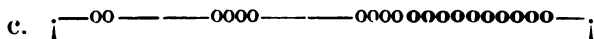
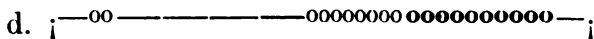


d. Unite, and read result:



(The 2 and 8 re-unite to make the 10, and the added 3 completes the 13.)

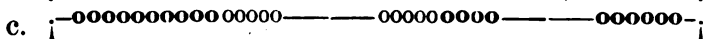
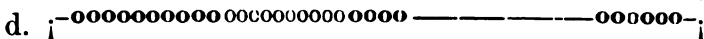
3. $14 + 4 =$.

a. b. c. d. 

(It will be observed that the actual work of addition is confined to the 4 + 4, which with the 10 (*teen*) make 18 (*eight teen*).

4. $15 + 9 =$.

(Inasmuch as the language changes here and means the tens before the units in the result (twenty-four), we may work towards the left.)

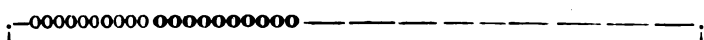
a. b. c. d. 

[a. All beads to the right. b. Fifteen to the left. c. Nine more to the left. d. Unite, and read result.]

For each of the remaining operations, I shall present but one type, leaving it to the ingenuity of the readers, even of the resolutely "practical" ones among them, to construct others.

5. $19 - 4 =$.

a. All beads to the left:



b. 19 beads to the right:

0 ————— 000000000 0000000000 ————

c. 4 of the 19 to the left:

0 ————— 0000 ————— 00000 00000000000 ————

d. Read remainder (15):

00000 ————— 00000 00000000000 ————

4 (4) or $4 \times 4 =$

0000000000 0000000000 —————

0000000000 000000 ————— 0000 —————

0000000000 00 ————— 0000 ————— 0000 —————

00000000 ————— 0000 ————— 0000 ————— 0000 —————

0000 ————— 0000 ————— 0000 ————— 0000 ————— 0000 —————

000 ————— 0000000 0000000000 —————

All beads to the left. b. One four to the right. c. A second four to the right. d. The third four to the right. e. The fourth four to the right. f. The four fours together.]

$24 \div 8 =$. (In 24 how many 8's?)

0000000000 0000000000 0000000000 —————

000000 ————— 0000 0000000000 0000000000 —————

000000 ————— 0000 0000 ————— 000000 0000000000 —————

000000 ————— 0000 0000 ————— 00000000 ————— 00000000 —————

$\frac{1}{3}$ (12) =

0000000000 0000000000 —————

00000000 ————— 00 0000000000 —————

00000000 ————— 00 0000000000 —————

00000000 ————— 0 ————— 0 000000000 ————— 0 —————

00000000 ————— 00 ————— 00000000 ————— 00 —————

00000000 ————— 000 ————— 000000 ————— 000 —————

00000000 ————— 0000 ————— 0000 ————— 0000 —————

00000000 ————— 0000 ————— 0000 ————— 0000 —————

All beads to the left. b. Twelve beads to the right. c. The twelve beads to the middle of the empty string. d. One of the twelve beads to the right, one to the left. e. A second bead to the right and to the left. f. A third bead to the right and to the left. g. Here the twelve is in three equal parts. h. One of these parts (the right) is four.]

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

"TEACH THE CHILDREN TO TALK."

THE explanation of problems in arithmetic furnishes a splendid opportunity to teach pupils to talk and at the same time to *say something*. Pupils often talk a good deal and say very little. *Sometimes* teachers do the same.

"Mary goes to school 9 months in the year and has vacation 3 mos. What part of the year has she vacation?"

The pupil tries to repeat the problem. He says, "Mary goes to school 9 months and then has vacation 3 months. What part of the year does she have vacation?" He left out one phrase and changed some words. The teacher says this is wrong. The pupil makes another trial and is farther away from the verbal expression than before. The teacher reads again very slowly and carefully, asking the pupil to listen closely. He does so, but to what is he giving attention? Verbal expression. He tries again to repeat the problem. He gets it just right this time—word for word—but now he has lost the meaning. He does not see the conditions expressed in the problem and the relation they have to what is required. He hesitates. The teacher urges him to proceed with the solution and "analysis." He stumbles and says he can't. He is asked to repeat the problem again. He tries it. He fails. He has forgotten the whole thing now, *words* and all. Does not know whether it was Mary or Susan who went to school. He has forgotten how many months she went to school. The teacher makes some original observations in regard to pupils whose memory is not longer than a short slate pencil, and reads the problem again.

The patient, long-suffering pupil makes another effort at verbal repetition and succeeds. He is then asked to solve the problem. He stands on one foot awhile and then changes to the other and looks out at the window. The teacher says, "Well?" But it is not well with this pupil. He is afraid to say he doesn't know what the problem is, for he knows he will hear some more remarks upon attention and memory, etc., and be asked to "repeat the problem." He has proved a success as a "repeater" twice already. He waits, and wishes he were any where but where he is. Finally the teacher tries to help him. He says, "Well, how many months did Mary go to school?" The pupil feels somewhat relieved to know that it was *Mary* and not some one else, and he feels

encouraged, for he recalls the fact that she went 9 months. "Well, now, how many months did she have vacation?" "Three." "Three what?" "Three months," said the pupil. "Well, then, what *part* did she have vacation?" "One-third," said the pupil. "How do you get that?" The pupil replied that three is a third of 9. "But how many months in the year?" "Twelve." "Well, then, what part of the time did she go to school?" The pupil thinks (?) a moment and says he doesn't know. The teacher then asked what part of 12 three is, and the pupil said one-fourth. Then the agony was over for that boy, but not for the teacher and the rest.

Now, reader, it may be that you are ready to say that no such a scene ever occurred in any school room. It never *should* have occurred. It is certainly a waste of time and strength, to say the least of it. It is stupefying, deadening mental action. Such things are done under the impression that the pupils are being taught to talk. They have no value except the training in verbal memory, and the poorest kind of verbal memory at that.

If a pupil has the conditions of the problem in mind what else does he need? Why not allow him to go to work and tell what he does to obtain his result? Let him "think aloud." He might say, in an *informal* way, that there are 12 months in a year. She had vacation three months. Three months are one-fourth of twelve months, so I know that she had vacation one-fourth of the year.

If the pupil can dispose of the problem in this way, he shows that he recalls all the necessary conditions of the problem, and that he not only thinks, but he tells what he thinks—he *says* something.

Which is greater, $\frac{1}{3}$ of 9 or $\frac{1}{2}$ of 6? How much greater? We have heard a Second Reader pupil dispose of the above as follows: One-third of 9 is 3. $\frac{1}{2}$ of 6 is 2. 3 less 2 is one. So I know that $\frac{1}{3}$ of 9 is one greater than $\frac{1}{2}$ of 6. That pupil was learning to talk. He *thought* first. He thought accurately. His teacher had made a point of having the class *say* what they thought in the order they thought it.

"How many times can I take a pint from $\frac{1}{2}$ gallon?" A pupil of the same class said, "In a gallon there are 8 pints, so in $\frac{1}{2}$ gallon there are $\frac{1}{2}$ of 8 pints and that is 4 pints. I can take 4 pints from $\frac{1}{2}$ gallon."

"UNSATISFACTORY."

Sometimes pupils are reported to the parents and the superintendent as doing unsatisfactory work. The inquiry is made as to why it is unsatisfactory, and the reply is that the pupil does not get his lessons. He

says "I don't know" to most of the questions. Often this is all that can be learned from the teacher. Pupils are sometimes kept back in the grade on the strength of such a statement, or are taken out of school by the parent. This is often unjust. There should be a strong effort made to find out *why* the pupil does not get his lessons, or why he says "I don't know" so often.

Sometimes he is not blamable. The writer knew a pupil who spent several months in a grade failing because he did not know fractions that were taught in the preceding grade. It was impossible for him to proceed. He was not blamable. The teacher should have investigated his case and ascertained just what his trouble was, and corrected it, or else had him placed in the grade where it could be corrected. There is too much teaching that is like shooting at a whole flock of birds, hoping that we may hit *some* of them. Teachers should take aim and hit the mark. Study the individual pupil.

SHORT NOTES.

ERRORS.—Do your pupils say "them boys," "these kind," "for you and I," "haint," "git," "ketch," "he done it," "had went," "have saw," "he don't," "it don't," "has the bell rang," and many other incorrect expressions? Do you try to correct them? They can be corrected only by persistent effort.

TRY YOUR CLASS.—1. A gentleman hired 9 boys to work for him for a nickel apiece. When he went to pay them he found that he had only a silver dollar. He stepped into a store near by to get the change. The clerk gave him 13 pieces. What were the pieces?

2. About how many pounds of sugar will an ordinary chalk-box hold?

3. Write this year in Roman numerals.

4. May every dividend and divisor become the terms of a ratio? Why?

5. What direction would you sail if you were to go down the Nile River?

INTELLECTUALLY HONEST.—A teacher once said to the writer that children were intellectually honest before they enter school, but after, they often are not. She gave this as a test. "I have a number in my mind less than 9, what is it?" This was tried in several schools, and every pupil but one tried to answer it. The answers were from 0 to 8. Several children who had not attended school were tried. Not one gave an an-

swer. They said they could not, but when told that the number is 2 less than 9 they answered it. Why is this so? Is it possible that we have made the children feel that they must give an answer to any question we ask whether they know it or not? We should aim to keep them "intellectually honest."

NEATNESS.—It pays to keep the school-room neat. It costs no money to do this, so there is no excuse for neglecting it. Take time to put the books away orderly before dismissing. It will not take much time. It will have a good effect on the school. They will grow to be more accurate and thoughtful. Let the teacher lead in this by keeping her desk in order. Think of the effect of chalk scattered all along the chalk trough, a rusty tin cup in one corner of the room, a map on the front wall, a piece of a dirty ruler on the ledge at the left; books, pencils, paper, withered flowers, broken pen-holders, pencils on the teacher's desk as if left there by a cyclone. One window curtain up, another down, another half torn, off the roller, chalk-marks on the board that have been there a month;—these and many other things that show a kind of "slipshod" way of doing everything, are against good moral training. They are so easily remedied that it seems strange that any teacher will allow them to exist from day to day. School should *begin* each day with every thing neat and in its proper place.

GENERAL INFORMATION.

NELLIE BLY, of the *New York World*, completed her trip around the earth on January 25, at 4:15. She made the trip in 72 days, 6 hours and 11 minutes.

EDISON'S NEW INVENTION.—It is said that Mr. Edison expects to have perfected by 1892 a far-sight machine, by which a person in Boston may see the features of a friend in New York with perfect ease.

THE largest single fortification in the world is Fortress Monroe. It has cost the U. S. Government more than \$3,000,000. Ask pupils to tell where this fortress is, and give any incidents connected with it that they know.

It is now proposed to connect Asia and North America by a railroad. It is a Russian plan. They propose to bridge Behring Strait. The narrowest point is about 60 miles, but as there is a chain of islands in a straight line, no section of the bridge will be very long.

THE FRENCH REPEATING RIFLE.—This gun shoots without smoke or flash, because no powder or other explosive is used. The expelling force

is compressed and liquified air. A short, sharp, low report is heard when the ball leaves the cartridge. The cartridge is about six inches long and is made of steel. It contains 300 shots that may be discharged as rapidly as one may desire.

THE largest wooden sailing ship in the world was launched at Bath, Me., a few days ago. She spreads about 13,000 yards of canvass, and has anchors that weigh 7,200 and 8,500 pounds. Her length is nearly 300 feet—as long as two town lots—and her tonnage 3,185. She will make her first trip from Philadelphia to Japan, and will carry 120,000 cases of oil. Ask pupils to describe the route that she will probably take. About how many miles will she travel? About how long will it probably take? What is meant by a case of oil? What kind of oil do you suppose she will carry?

THE FORTH RAILROAD BRIDGE.—This is the greatest viaduct in the world. The entire superstructure is composed of Siemens Marten steel. About 53,000 tons of metal were used in its construction. It is about one and five-eighths miles long. This bridge is at Queenstown Ferry, near Edinburgh. It is supported by three main piers, whose diameter is 49 feet. They rest on solid rock or boulder clay, 91 feet below high-water. Two of the spans are 1710 feet long. The greatest height of the structure is 361 feet. Vessels with masts 150 feet high can pass under it.

Questions for the Pupils.—Where is Queenstown? What is a viaduct? What is Siemens Marten steel?

THE BRITISH EXTRADITION TREATY.

The opinion seems to be unanimous that the British Extradition Treaty, now awaiting consideration by the Senate, should be ratified. Some twenty six extradition treaties have been negotiated by our Government and are now in force, only a few of which are deemed sufficiently comprehensive, the least satisfactory being just those which should be most adequate.

The weakest of all, perhaps, is that existing with Great Britain, the very country with which such a treaty should be made comprehensive, because of our close and easy communication with it. An attempt was made during the last administration to negotiate such a treaty, but it failed on account of the desire of England to provide for the extradition among others of Irish political offenders. Among the four crimes which it added to the seven named in the existing treaty was included "malicious injuries to property whereby the life of any person shall be endangered." True, precedents exist for such a clause, similar ones being

ded in the treaties with Peru, Belgium, Luxemburg, and Japan, but each of these cases the conditions differ in very important respects from those which exist in the case of Great Britain.

In the preparation of the new treaty, Secretary Blaine and the British Minister confined themselves to a list of offenses so manifestly crimes in all countries that there could be no controversy over them, with the result that it is the most comprehensive of existing extradition treaties. Less than twenty-two crimes are added to the seven covered by the treaty of 1842, including two contained in no other treaty—manslaughter and fraud by bailee, banker, agent, factor, trustee or director, which by the laws of both countries are crimes. The latter provision, of course, actually closes the door of escape for our army of defaulters and commercial rogues of all sorts who have made Canada their asylum, and in the prospect of punishment which it holds out to such offenders, it will be a direct preventive of crime.

At the same time, the privilege of the Government to give strictly political offenders an asylum is preserved, in the stipulation that no such person shall be extradited, and that no person shall be tried for any offense save that for which he is returned. As the treaty is a model one from every point of view, and as there is no partisan opposition to it, its ratification may be taken for granted.—*Week's Current.*

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

READING AND LANGUAGE.

In this article I desire to speak of two lessons that I recently observed. One of these was a lesson in the primary phase of Reading in the First Year Grade; the other was a lesson in Language, given to the pupils of the Fifth Year Grade.

THE READING LESSON.

The Subject-matter.—The lesson in the First Year Grade had for its subject-matter:—

The sounds of the oral word *red*.

That in the structure of the printed word, which symbolized the sounds of the oral word.

The lesson was given to children who had been attending school du-

ring the first five months of the year, and it occupied about ten minutes.

2. *The Previous Work.*—In order to understand the nature of the work taken, some reference will be had here, to the work that had been previously given. During the first five months of school, some fifty or sixty words had been taught as wholes; and, as their meaning permitted, combined into sentences. In teaching these words, the effort had been to associate them as wholes, directly with their meaning. The association had been direct, on the principle that those associations which are most free from entangling relations are most effective. It being the aim to associate these words with their meaning, the effort was to make this association direct, by avoiding any reference to the oral word other than that which was incidentally or necessarily involved. In teaching these words as wholes, the oral word had not been used, in order to avoid the impression that the printed word stands for the oral word. Much of the early reading work in primary schools is made formal and mechanical, because of the idea of the teacher that the printed word stands for the oral word—and is to be so taught. This is so only incidentally; mainly, the printed word stands directly for the thing itself. This is true also of the oral word. Hence indirectly, each stands for the other; but it is not necessary to teach the printed word as expressing the oral word—since in teaching each as symbolizing the thing itself, that incidentally follows. It is a great advantage to leave this association incidental. If a grocer has in front of his store a picture of some apples intended as a sign that there are apples within for sale; and also has displayed at another place upon a sign-board the word *apples*, each sign signifies directly, the objects in the store,—and only indirectly, the other sign.

In teaching the printed word, it should be directly associated with the meaning without reference to the oral word, except in such cases as is necessary.

The principles adhered to in this work with the words as wholes, had been:—

a. That the first impression a child should get of words, is that as wholes they express meaning.

b. That he should learn to determine the sound from the form of the word itself. Therefore during these first few months there had been no work with sounds, letters, or diacritical marks; and the words had been taught in analogous groups—as, boy, joy, toy, etc.

3. *The Aim.*—In this particular lesson the aim was:—

a. To give to each pupil the exact idea of each sound.

b. To put each child in possession of the ability to produce accurately and readily, each sound.

c. To form in the mind of each child, a close association of each sound with that in the structure of the word which expressed that sound. For example, the pupils were to learn that the first sound of the oral word was expressed by the letter *r*; and that its ability to express it, did not depend upon what preceded it or what followed it; that the second sound of the oral word was expressed by the letter *e*, without any reference to what preceded it, but with direct reference to the following letter *d*; that the third sound of the oral word was expressed by the letter *d*, without reference to its position.

4. *The Steps.*—*a.* In beginning the work, the teacher first placed on the board the word itself—*red*. She then sought to have the children associate this word with its meaning, by asking the pupils to point to what the word led them to think of. Each child answered by showing some object which had the color *red*, and saying, "It makes me think of the color of this."

b. The teacher next sought to have each child give accurately, the oral word; that is, the sound of the word as a whole. This was brought out by asking each pupil this question: "What is this word?"

c. The next step was to awaken the idea that the oral word consisted of separate sounds. This was reached through a slow pronunciation of the word. It was repeated until the number and the general nature of the sounds became clear to the pupils.

d. The fourth step was to make the children understand clearly the first sound, and to give them the ability to produce it, together with a knowledge of that in the printed word which symbolized the sound. In doing this, the teacher first individually tested the pupils of the class upon the production of the sound. When it appeared necessary, the teacher assisted by giving distinctly the sound. This was followed by the class giving the sound as a whole, giving the sound. The next work with the first sound, was to fix clearly the symbol that represented it; that is, to give the children knowledge of that part of the printed word that stood for the sound. The manner of doing this, was to have some pupil produce the sound, and then ask another of the pupils to make upon the board that part of the printed word which stood for the sound. This was repeated until the symbol was placed upon the board six or eight times. This was followed by drill of the following nature:—

a. The symbol being pointed to, a pupil was asked to give the sound

it stood for. This was repeated several times with other pupils. In this drill, the passage was from symbol to sound.

b. In the second form of drill, the passage was from sound to symbol. For example, some pupil was requested to give the sound; and upon his doing so, another pupil was asked to point out that upon the board which stood for it. This form of drill was repeated as before. The same kind of work was taken with the second and third sounds, as that here explained for the first sound. The work with the second sound differed from that of the first and third, however, in this respect—the point was clearly made that it was not the *e*, regardless of its position, which symbolized the short sound of *e*; that it was not *e* in relation to the preceding letter that symbolized the short sound of *e*; but that the letter *e* because of its position in reference to the last letter, indicated the sound that it did. This thought was emphasized on the principle that work with sounds should indicate that in the structure of the word itself, which symbolizes each sound.

THE LANGUAGE LESSON.

1. *The Subject-matter.*—The subject-matter of the language lesson in the Fifth Year Grade, was the expression, *there, in that place, at that place*, as terms standing for the same idea. The subject-matter first appeared as the word *there* in the sentence—"He will not stay *there* long." The other expressions that constituted a part of the subject-matter, were brought into consideration as the lesson progressed.

The spirit in which the work was considered, was that which gives prominence to the meaning. The points of the lesson were worked out from the thought side. The children were led to view the different expressions from the standpoint of the one who had in mind the thought which was expressed by the sentence. The question kept prominently before the children was, "If I had been thinking a thought, and had used this sentence, what phase of my thought would the word *there* have expressed?"

2. *The Work that had been Previously Done.*—In order to understand clearly the nature of the work done in this lesson, lines of work previously considered will be mentioned:—

a. In the First Year the children had had the usual dictation and copy-work, and the oral expression naturally pertaining to general lessons; they had studied particular objects with fixed attributes; marked out first, the purpose of the object; and then viewed its various other attributes in relation to this purpose—giving to all the thoughts arising from such consideration of the subject, their appropriate oral expression.

In the Second Year, work of this nature had been continued. The children had also studied a particular object with changing attributes. For example, the growth of a certain plant in the window, from the seed to the full-grown plant. The thoughts arising from such consideration had been given oral expression. In this grade the children had also studied the isolated sentence, working out its meaning and giving appropriate expression to all the thoughts arising in the study of the sentence. By the study of the isolated sentence, is meant the consideration of sentences, taken out of their connection. Viewing a sentence thus apart from its connection, the children are led:—

To construct a set of circumstances that would be appropriately expressed by the sentence.

To determine from this set of conditions which they have considered, the force of the various words.

In the Third Year, work similar to that in the Second Year is continued; and in addition, the pupils have worked out from the study of particular objects a general idea, and have given oral and written expression to the thoughts arising in such consideration.

In the Fourth Year, work similar to that in the Third Year is continued, and one new line of work is added.

This is the consideration of the force of the various kinds of nouns and pronouns.

A noun or pronoun which is used in a given sentence, is studied carefully as to its meaning and use; the children are then led to substitute other expressions for the same meaning and use. These expressions are compared, in order to determine which is the more appropriate.

In the Fifth Year, the line of work just referred to as belonging to the Fourth Year is continued, by the consideration of variety of expression for the idea expressed by the verb and the adverb.

The lesson observed was dealing with this point in substitution.

The Purpose.—The purpose in the lesson was threefold:—

To determine the meaning of the word *there*.

To determine its exact use in the given sentence.

To decide upon other expressions that could be appropriately substituted for it.

To determine which of the given expressions was most suitable in the given case.

Steps.—*a.* The first step in the work, was to lead the pupils to recognize that the word *there* expressed either:—

The place in which the person expressed by "he" was.

(2) The place in which the person expressed by "he" would be for a time, if he were not now in that place.

In order to show the first meaning, a pupil said, "Suppose a person is in Detroit, and another person knows that he is in that city", the expression, 'He will not stay *there* long', could be used.

In order to show the second meaning, one of the pupils said, "If two persons were to day in this city, and one of them were going to Chicago next week, the first person might say to some one else, 'He will not stay *there* long.'"

b. The second step was to lead the children to see that the word *there* expressed the place in which the speaker was not.

c. The third step was to determine other expressions for the idea that the word *there* expressed.

d. The fourth step was to lead the children to determine under what conditions any one of the given expressions would be the most appropriate.

SHOULD THE MAP PRECEDE THE TEXT?

To the Editor of the Primary Department: Some one should dissent *in toto* from "F. L.'s" article entitled, "The Map to Precede the Text." The position there assigned the map fundamentally misrepresents its true purpose. The map is not to be made the "basis" of geography, but to be used as a means of supplying surface place relations, in reading and in study. Ordinary geographies make what seems to be a fundamental mistake in putting the use of the map in a primary position of importance. They give special emphasis to the latitude, and longitude of particular places; to boundaries; to the direction, origin and *debouchere* of rivers; to the place boundaries of places, and to the trend and horizontal extent of the mountain-systems and mountain-chains. These things are doubtless essential and should not be neglected, but they are to be secondary to the true flesh and blood of geography, that is, to a study of the *life* of the globe and of its localities. This is well stated by Geikie in his little volume on *Physiography*.

Geography is a study of life, that is, of organized activity, and, as such, must have, as its central and predominant element, the thought of how the life manifests itself. Maps furnish a representation of a few meager elements, secondary in their nature, of the totality of solar life (Mathematical Geography), climatic life (Physical Geography), or of social life (Political Geography). The rational core for the study of the science is an exposition of geographical organization in its various forms.

ich maps, molding, map-drawing, and all else are subordinate in-
ents.

far as appliances go, the principal thing is a good description, which
e illuminated by reference to maps, charts, and other place-forms,
ize representations.

e reason geography, as now taught, is so essentially barren, is the
at too much is made of the map. Pupils locate a thousand things
e they have anything to locate. This makes the map the end of
aching. In place of ideas of continents, as great wholes, of surface-
ur, of climate, of plants and animals, and of man and his institu-
the poor pupils go away with a green, red, or blue daub of color,
iece of paper, streaked and dotted with the place representation
ers, mountains and towns, as their ideas of continents and coun-

This is not only nearly valueless as information, but positively
ing and hurtful as training. It will be a gala-day for geography in
ntary schools, when the map is dethroned and sent into its true
in the servant's hall. We shall then, doubtless, have some real
aphy, while now we have nothing better than a fragmentary topog-

S. S. PARR.

CLOUD, MINN., February 8, '90.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw Normal School.]

E AND PLACE AND WHOLE AND PART AS CATE- GORIES IN HISTORY.

the preceding articles history has been discussed under the catego-
ries of *substance* and *attribute*, with their pedagogical implications.
the successful mastery of the fundamental idea (attribute) of
y and of the phases of this idea in each period will largely depend
e application of the other categories of thought to the study of events.
e categories aid in getting the relation between events and the growth
eas, and also the connection between events. Events bear an im-
ate relation to the growth of thought and feeling, but have only an
ect connection with each other. It must not be forgotten that the
can not pass directly from event to event, but must pass from event
ought, and then from thought to event. The categories greatly fa-
te this work.

Growth implies change and change requires *time*. Growth in institutional ideas has been along lines parallel in time. Events are located along these lines at intervals of time. It facilitates interpretation, then, to know the place an event occupies in a series; this may be done by recalling events that precede, succeed, and are simultaneous. This is for the sake of the event and its content, and for the higher relations which the time may suggest, but is never for the date. This fact, rightly understood, will prevent the pernicious practice of committing long lists of dates with only the names of the events attached. The same amount of energy given to a study of ideas as revealed in the events attached to the list of dates would give a fair knowledge of their content, and at the same time the dates of the events would be sufficiently fixed for all practical purposes.

Growth must occur *somewhere*, and the *place* in which a people's life develops exerts a powerful influence upon it. The origin of the Civil War can not be understood until the industrial and social differences between the North and the South are studied; these differences are largely due to different physical conditions. The geography of the Hudson River and Lake Champlain region determined the purpose and plan of many campaigns in the Inter-colonial and Revolutionary wars. It is clear from these two illustrations that the relation of place, like time, is a key to knowledge under higher relations. If the place of an event, including its surroundings, can not be seen as an active agent transforming events and ideas—can not be used to aid the process of interpretation—then its historical value is very small. The bald location, on the map, of all the places named in the text is almost useless, for the pupil carries away the memory of marks on certain parts of a map that hangs on a certain wall of his recitation room. This gives the imagination little aid in picturing the physical surroundings of events.

Although the movement in institutional ideas is continuous and unbroken, it manifests itself in phases. Viewing the continuity of history gives us the *whole* while viewing its phases gives us the *parts*. The discovery of an idea running through a series of events constitutes them a whole, while the detection of differences in the connecting idea drops the whole into its parts. In order that the process be logical the student must not only make the separation and integration with reference to the same idea, but he must be conscious of this fact. If not conscious of the separating and integrating idea, the student may assume a new basis at each step, and thus obtain divisions that are neither logical nor coordinate.

Of all the divisions we may make in history the one based on time is the most obvious and at the same time the most superficial. Ideas grow

ed events occur in time, but neither are controlled by the lapse of years, decades, or centuries. New ideas and new movements do not begin with the beginning of the year, nor cease with the closing of a century. Hence time-wholes and time-parts are more or less artificial. We may think of the battles of Lexington and Concord as occurring in one day, thus surrounding the event, as it were, by the limits of a day. We may throw this event into time-parts by perceiving that a portion of the movements occurred before daylight, others in the forenoon, and still others in the afternoon. The weakness in this basis of separation is in the fact that the parts do not correspond with the real parts of the event.

If we think of the military events of the Revolution as having occurred between Canada and the Gulf of Mexico and the Atlantic and the Mississippi, we have a space-whole. By perceiving that some events occurred in the North, others in the South, and still others in the West, we separate the whole into space-parts—that is, the mind really separates the country into parts instead of the war.

More fundamental bases of separation and integration may be found in the categories of cause and effect, means and end, and substance and attribute. The familiar division of our history into Discovery, Settlements, Inter-colonial Wars, Revolutionary War, Confederation, Administration, and Civil War, is made on the basis of purpose, perhaps; and while it may not be illogical and is more fundamental than divisions on basis of time or space, yet even this separation is made with reference to external events, and hence is more superficial than if based on differences in the growth of institutional ideas. This latter basis is the most fundamental one in this subject, because it concerns itself with the very heart of history.

It must not be forgotten that all separation is for the purpose of integration,—analysis is a means while synthesis is an end. Unless we do make a higher and more perfect synthesis after the whole has been broken into its parts, we fail at a vital point; it is a double failure—a failure to secure the highest results both as to knowledge and discipline.

The perfect application of whole and part requires that the idea taken as the basis of the process shall pass from its general to its concrete form, so that the general truth may get as close to the particular fact as possible. This will result in putting new significance into the abstract idea as well as into its concrete manifestation. It brings the principle down from the clouds of speculation and puts it to work in lifting up the dead particulars to newness of life. This brings into unity the two phases of thinking that should never be separated. The general phase of the idea union

joins all the events of the Revolution into a whole. The idea must be general enough to be common to all the movements of that period, else the whole is not a perfect one. An examination of the general idea of union discovers two phases and our period of Revolution drops into two parts. Each phase of union joins the events pertaining to it into a whole. The new wholes are made by a more concrete form of union than that belonging to the whole period. Union against England and union on domestic questions are not only more specific forms of union, but each is closer to the events—and the events to each other—than in the period as a whole. The integration is more perfect in each of the smaller wholes than in the larger one. Similarly we may separate each of these parts into smaller parts by discovering differences in each of these two phases of union, thus bringing the general and particular into more intimate connection.

The above points concerning the categories of whole and part may be taken as indicating their legitimate use in studying and teaching history. A few points pertaining to the abuse of this pair of relations may not be out of place here.

Most of the so called "methods" of teaching history, such as the Topical, the Outline, the Diagram, the Exponential, and the Brace methods, are based on these relations. A student may outline or diagram a lesson in history, as presented by some author, and know almost nothing about it. The most imposing outlines of history are those made independent of any basis of division, while diagrams, to be of any teaching value, must adhere to some fundamental idea as a basis of division, which usually renders them insignificant in appearance. This point must not be forgotten by the diagram monger—that the student must understand the relations in history before he can make a logical diagram, and that after these relations are once mastered, the student has very little use for such artificial representations. Again, the outline and diagram represent historical material as statical while, in truth, it is predominantly dynamical. On still another count these artificial systems are found wanting; they represent on the black-board or in the note-book a thing that has no spatial relations, and the pupil carries away a picture of a subject in two dimensions. This is absolutely false, and the only redeeming feature about it is that the pupil will lose his false conception as soon as the artificial frame-work passes away. Finally, these systems, at best, are based upon but two out of the dozen categorical relations.

If the above points be true, these artificial systems, as fashionably used, are not only stupendous frauds, but are the most successful schemes that ignorance and imbecility ever invented to cover up their own shallowness.

W. H. M.

METHOD IN DEFINITION.

reference to the preceding number of the Journal, it may be seen that the method in definition is *the process of thinking individuals into the unity of a general idea; and that this general idea has the two phases of the particular and the universal*. The particular element unifies the individuals, and at the same time separates them from all other individuals; while the universal unifies the individuals, and, at the same time, connects them with the universe out of which they spring.

Since the general is based on the individual, the first step in the process is that of observation; or rather, observation is continued throughout the condition of the other processes. If the teacher is to develop the definition of a noun, he must supply the pupil with sentences containing the noun.

The second step is to unify the individuals under the universal attribute. This involves subordinate steps.

Using still the noun to illustrate, let us suppose the student is already supplied with some more comprehensive idea, that of *word*, as expressing an idea. Individual words, including nouns and other words, may be compared and contrasted until the pupil finds the likeness between the class studied and all other words, namely, that all express an idea; and the difference between the words studied and all other words; namely, that they all express objects. This last difference and the former likeness are both common to all nouns, and bind them into unity; while both attributes extend beyond nouns to words, and the first one extends to all things, for everything expresses an idea. The pupil's mental process has here three steps: (1) Comparison and Contrast; (2) Abstraction, in fixing the attention on what is common; (3) Generalization, in applying the common element abstracted to the individuals in order to unify them.

The particular element must next be sought. So far, the pupil has connected the noun only with some thing more general than itself; he must now find the attribute which is common, but peculiar, to the noun—that which separates it from everything else. So far, he has reached the conception of a substantive, and is ready to define a substantive as a word which expresses an object. But this includes the pronoun. He must compare and contrast individual nouns and pronouns until an abiding difference is abstracted. This difference on the side of the noun is the likeness which marks off the class noun from all other words; i. e., that they express objects by naming them. In this we find the same

three processes as under "a". The last generalization may be stated as follows: A noun is a substantive which expresses its object by naming it.

Referring back to "a", it should be observed that the universal truth is presented in definition by referring the class to be defined to a known larger class of which it is a part. Whenever an object or class is said to be in a larger class, however small the larger class, a connection is established with the universe. To say that a noun is a substantive is to say that it is the arbitrary expression of an object, and to say this is to say that it is the arbitrary expression of an idea; which further implies that it, at least, is the expression of an idea. Now this last fact is true of every object in the universe. All express thought. Nothing can be correctly defined without connecting it with the sun, moon, and stars; and the definitions which have power to the student are those in which he can feel his way back to, is conscious of, the universal element. This reference of an idea to a larger whole is only a concise and an abbreviated form of giving the universal. Otherwise the universal elements would have to be enumerated.

It follows from what has been said that the larger class to which reference is made must be a known class, and such as will give the clearest and fullest notion of the class defined. Reference is made to the known class to abbreviate the process; and if this class need explanation the purpose is defeated. For the same reason, the class to which reference is made should have the greatest content, and, therefore, the least extent of any class to which reference can be made. Reference is made to the larger class to save enumerating and explaining common attributes of the class defined; and the greater the number found in the larger class the greater is the economy. For instance, in defining a pronoun it may be referred to the class words, or to the smaller class substantives. The choice will be determined, first, by which is better known; second, by which has the greater content. If the substantive has been previously defined, it must be selected; because it contains one more attribute in common with the noun than does the class words. Saying that a noun is a word is saying only that it expresses an idea; but saying that it is a substantive is saying that it expresses an idea of an object.

Thus we arrive at the first rule for making a definition: *Present the universal nature of the class by referring it to the smallest known class of which it is a part.*

Referring back to "b", it will be observed that the next step in the formal definition is the statement of the attribute which gives the class

particular, separate being. In stating this attribute, two points must be observed. Since the attribute now to be stated is that which separates the class from all other objects, care must be taken that the common attribute is not found in any other object; that is, that the definition be not too broad. The second fact is, that since the attribute is not only particular but common, care must be taken that it include all the objects to which the generalization extends; that is, that it be not too narrow. The law worthy of the most special attention in giving the particular mark of the class defined is that of unity. If an attribute be given which belongs only to a part of the individuals, and then a second be given to include some of the remainder, and another to include what is left, three classes are given instead of one. For instance, "A verb is a word that expresses action, state, or being." Action does not belong to all verbs; neither does state, nor being. If we should take all verbs in the language and place them before us, as the definition requires, we should have three groups instead of one. The attribute must unify; and for this it must belong to every verb in the language. The violation of this unity, is perhaps the most common and fundamental error in making definitions. It fosters loose and superficial habits of thought, and misses the truth sought. Thus we arrive at the second rule for making a definition: *State the one common, particular attribute of the class,—that which includes all the individuals of the class and at the same time separates them from all others.*

If the teacher will master this theory of the definition, and the application of it to the process of developing definitions in the various subjects he teaches, he will soon feel repaid for his effort and his patience. The educational value of the process of definition to the pupil ought yet to be analyzed.

"KNOWLEDGE COMES, but wisdom lingers." The laureate's aphorism is true of the race as of the individual. The whole history of prisons on the one hand and public schools on the other proves it. The day is not far when all intelligent people will look back with amazement, not undreaded with horror, on the manner in which the most enlightened nations, in the latter half of the nineteenth century, dealt with their street boys and juvenile criminals. To suffer thousands of orphaned, or worse orphaned, children in every great city to grow up in sinks of material and moral filth, in training for lives of vice and crime, is a folly surmounted in depth and culpability only by the infatuation which hands over youth convicted of his first offence to be branded with the infamy of a convict, and made the constant associate of the most confirmed criminal. Is it any wonder that people everywhere cry out that free schools and universal(?) education are failures in annihilating crime?

EDITORIAL.

THIS issue of the Journal contains a large number of new advertisements, to which special attention is called.

LA GRIPPE has had a wild run over the state and has played havoc with school attendance everywhere. In some places schools have been dismissed for a week or more.

Please, PLEASE, PLEASE, do not wait for a "Reminder," but authorize the transfer of your name to the *paid list* at once, if it is not already there. "Now is the accepted time."

If you have some topic, pertaining to your school work, that you would like to have treated, please send it to the editor of the department in which it belongs. Or, if you do not fully understand what is meant, or how to apply a suggestion, write for an explanation. The Journal is for the *use* of its patrons.

THE FARMERS' INSTITUTES being held over the state under the auspices of Purdue University are to the farmers what the Teachers' Institutes are to the teachers. They give to *all* the best thoughts and best methods of the most experienced. Their value can not be too highly estimated. Teachers interested in farming should not fail to attend these meetings.

KANSAS leads all the rest. The treasurer of the Kansas Teachers' Association enrolled *twelve hundred and forty-three* paying members, at its late meeting, and it was estimated that there were present, not enrolling, eight hundred more. This is *magnificent*.

It is to be noted that in other states, as in Indiana, there is a non-enrolling class—a class that is willing to enjoy privileges that others pay for.

THE JOURNAL wishes to repeat what it has often said, viz: That the Journal is not a *personal* organ. It is always open to any one who has a message to speak on any educational topic of general interest, whether the sentiment expressed be in accord with those of the editor or not. The best way to reach the truth of any mooted question is to discuss it. All that the editor asks is that the discussion be limited to the merits of the question and that offensive personalities be avoided.

THE NATIONAL EDUCATIONAL ASSOCIATION will hold its next meeting in St. Paul, Minn. The National Council will meet July 4th to 9th, and the Association proper will meet from July 8th to 11th.

An unusual effort has been made to arrange a superior program for each Department, and the prospects are that the attendance will far exceed that of any preceding meeting. All the main lines of railroads have agreed to give half-fare rates and make the tickets good till September. Indiana should send a large delegation.

FEBRUARY 27 is set as the time for arguing the constitutionality of the new school-book law before the Supreme Court. The first date fixed for this argu-

was January 28, but all the judges could not be present, and so February was fixed as the time. The case will be ably argued on both sides by some of the most talented lawyers in the state, and when they are through, the court will have all the facts on which to base a just decision.

This decision, whatever it may be, will of course be final and should be so regarded by all parties.

When the Supreme Court shall decide exactly what the law means, then its merits can be discussed with more intelligence. It is altogether likely that the next issue of the Journal can give the court decision.

OFFER EXTRAORDINARY—RENEWED.

Every subscriber of the Journal who will send to the editor a *new* subscriber and \$1.25 (club rate) between now and April 1, 1890, will be sent, post-

"THE EVOLUTION OF DODD."

This "Evolution of Dodd" is a story of a boy's life, giving all his school experiences. It is written by an experienced teacher and illustrates many phases of school management. It is highly entertaining, and at the same time is full of practical suggestions to teachers. It contains 253 pages, is in good type, neatly bound in paper cover. Dr. E. C. Hewett, author of Hewett's Pedagogy, says of the book: "I am glad 'The Evolution of Dodd' is to be kept before the public. It is an interesting story, and has many valuable suggestions for teachers and parents. It presents some points not often found in books on pedagogy."

Now let every subscriber to the Journal secure a new subscriber at club rates, and get this interesting and helpful book.

Necessary offer to loan "Dodd" to the new subscriber.

THE SCHOOL JOURNAL BOYCOTTED.

LOGANSPORT, Feb. 16.—[Special.]—The following order was recently issued by the city school board:

"In opposition of the *Indiana School Journal* to the Indiana text-books, together with its promulgation of politics and use of language unbecoming a school journal—such as "hellish," etc.—forfeits all claim of support from teachers and school people, and its further use by teachers of the Logansport public schools will not meet with the approval of the school board.

A SENTINEL representative called on the president of the school board, Mr. C. Hannawalt. He said that the teachers in the public schools were until lately all readers of and believers in the *School Journal*; that the paper had published bitter articles against the new school-book law, and prejudiced many of the teachers against the use of the new books; that the board only did its duty to the people it represents and to the laws of the state, in advising against the use

of the paper that advocated disobedience to a state law. Mr. Hannawalt said that the board meant it, too, and that any teacher who continued using the paper in the school stood a good show of being out of a job next winter, as there were plenty of teachers out of situations who are willing to abide by the order of the board. The board is composed of V. C. Hannawalt, Dr. H. D. Hattery, and James P. Martin, and they are determined to down the old school-book monopoly. No politics goes in the public schools here.—*Indianapolis Sentinel*.

The above is a result of what the Journal said last month about the Logansport school board, in its unjust treatment of James C. Black, former Supt. of the schools of that place. The board attempted to blacken the character of Mr. Black, simply because of a difference of opinion in regard to a money settlement. The "use of language unbecoming a school journal, such as "hellish," refers to what the Journal said of the board's conduct in this matter. If any doubt ever existed in the mind of any one as to the ability of this board to do a low-down, contemptible deed, the above "order" will certainly remove such doubt.

Let it be noted that instead of being frank and straight-forward, the board, in its "order," covers up the real and only ground for its action, and baldly asserts two slanderous lies instead, and then on the strength of these lies boycotts the teachers in order to make the teachers boycott the School Journal.

Lie No. 1.—"The opposition of the *Indiana School Journal* to the Indiana text-books." The School Journal has never, at any time, expressed an opinion, *pro or con*, as to the merits of the Indiana text-books.

Lie No. 2.—"Together with its promulgation of politics." The Journal is not and never has been partisan. The whole spirit of its teaching has been and is that partisanship should be ignored in all educational matters. Time and time again it has urged that teachers and superintendents should be selected without regard to their party or church preferences. Every second year, just before the time of making appointments, the Journal has urged trustees to appoint the *best man for county superintendent without regard to politics*.

By going back over a period of eighteen years (the time the present editor has had charge of the Journal), possibly half-a-dozen statements can be picked out that, "on their face," might be construed as partisan; but it is just as true that an equal number of restrictive statements can be found applied to the opposing party.

Not one of these statements was ever made for political effect, and any fair-minded person would so agree if he could know all the facts connected with each case.

Lie No. 3.—"If the interviewer reports Mr. Hannawalt correctly, he states what is absolutely false when he says the Journal has "printed bitter articles against the new school law" and "advocated disobedience to a state law."

The Journal has printed no bitter article against the law, but it has taken the liberty to criticise some phases of it. The Journal did not know that this law was sacred, or that it belonged to any political party, and thought it had a right to criticise it just as it would any other law, that has to do with schools.

at the Journal has in no single line or word, at any time, "advocated disobedience to the law." On the contrary, last August, before the law had taken effect, when there was great excitement and great difference of opinion as to whether the law was compulsory, and as to the merits of the books, etc., the Journal said (page 509):

If people are wise they will concede their individual opinions for the sake of the schools. If the school authorities decide to retain the old books for the present, let the people support them; if they decide to introduce the new books, let the people all co-operate. This course is certainly in the interest of the schools. For the time being, if such a thing be possible, let us rule out individual preferences, and save the schools from an otherwise impending calamity."

It will thus be seen that this "boycott" is simply a scheme for taking revenge on the Journal for properly characterizing the board's treatment of Mr. Black. The Logansport teachers have not sense enough to select their own educational reading, as is implied in this "order," why does the board not carry its reasoning to its logical conclusion, and institute a censorship over the teachers to dictate what church they shall attend, what school of medicine they shall organize, and what books they read, because there is danger in all these ways teachers may be "prejudiced" against some theory of the board, or else they may be subjected to the influence of "unbecoming language—such as *sh.*"

The boycott is at all times despicable, but when used by a person holding official position, and accompanied by the lowest sort of bull-dozing, it becomes repulsive."

There is absolutely no politics in this matter, as Mr. Black is opposed politically to the writer. The sole purpose of the article last month was to defend the good name of an honorable superintendent against a wicked attempt to tarnish it.

The Journal appeals to the good sense and common honesty of its readers, and is entirely willing to abide their judgment.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN NOVEMBER.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

- GEOGRAPHY.**—1. Bound Tennessee; South Dakota.
2. Describe the character of the soil and the productions of Iowa.
 3. What part of Indiana is covered with glacial drift? What effect has the drift on the soil and productions of the state?
 4. What is the government of France?
 5. What is meant by the Tropic of Cancer?
 6. Describe the Colorado River.
 7. Distinguish between land-forming and land-wearing agencies along the sea-coast. Give examples of the effects of each on the coast of the U. S.

SCIENCE OF EDUCATION.—[Five of these questions are based on the Reading Circle work for the current year. The applicant is to answer any five.]

1. State two good reasons for requiring the school to give physical training
2. What is included in the complete training of the intellect?
3. In what general order are the intellectual faculties unfolded?
4. What is the design of object lessons?
5. What do you understand by the logical order of developing a subject?
6. What is the general relation of pedagogy to psychology?
7. State two or more different definitions of education, and attribute them to their proper authors.
8. What is meant by a liberal education?
9. What do you understand by "the method of nature?"
10. Why should a republic educate all its citizens?

ARITHMETIC.—1. What degree of prominence should be given to the study of mental arithmetic in school?

2. Divide 3 bu. 2 pk. 5 qt. by 2 bu. 6 qt. 1 pt.
3. A man has $20\frac{3}{4}$ acres in one field, $40\frac{1}{2}$ acres in another, and $\frac{3}{5}$ as many acres in a third as in the other two; how many acres has he altogether?
4. What is the present value of a debt of \$1,000, due 2 yrs. 6 mos. 18 days hence, at 7%?
5. Railroad stock bought at 110 and sold at 116 will yield what rate of gain?
6. A man bought a house, agreeing to pay one-half in four months, one-third in nine months, and the remainder in a year. Required, the average time of credit.
7. Divide $998\frac{7}{8}$ by 56.25, and give the rule for pointing off the quotient.
8. What principal will, in 3 yrs. 8 mos. 15 days, at 6%, give \$76.09 $\frac{1}{2}$ int.?
9. The difference between the simple and the compound interest, computed annually, of a certain sum, at 8% for two years, is \$120. Find the sum.
10. On a note dated February 16, 1880, for \$1,500, at 6%, are the following indorsements: Sept. 16, 1880, received \$80; Jan. 1, 1881, received \$20; July 25, 1881, received \$600. What was due April 1, 1882?

U. S. HISTORY.—Write the history of the explorations that were followed by settlements in the regions explored, and follow the history of the settlements until you have shown the growth or establishment of beliefs, customs, laws or institutions, characteristic of the people making the explorations and founding the settlements; or,

Write the history of the rise and growth of political parties in this country, stating as clearly as can be done in brief the chief principles held by each during its existence.

PHYSIOLOGY.—1. Name and locate five different kinds of glands, and state the function of each.

Draw a diagram of the heart, showing its cavities and the origin of its principal arteries, and the termination of its principal veins.

Describe briefly the lymphatic system, and state its functions.

Describe the course of a sound wave from the eardrum to the brain, mentioning all the structures that aid in hearing.

Describe the process of respiration.

What instructions would you give your pupils in regard to habits of study? (Answer any five.)

GRAMMAR.—1. Write this correctly: Many of the settlers in Georgia were Catholics, a persecuted sect of Christians from Austria.

Analyze: We think in words, and when we lack fit words, we lack fit thoughts.

Give the use of the italicized words in the following, and state what part of speech each is: *Glaciers flowing down mountain gorges*, obey the *law* of the earth; the upper surface flows *faster* than the lower, and the center faster than the adjacent *sides*.

Analyze the last part of the 3d, beginning with the word "and."

Correct with reasons:—

- a. I will give it to whomever most needs it.
- b. With peace has come many changes.
- c. Speak slow and distinct.

Give the tense form of each verb in the following:—

- a. We leave in the morning.
- b. The sun rises.
- c. If he were here, I would go.
- d. A triangle has three sides. What time is denoted by each?

In any given sentence, how do you determine whether to use *like* or *as*?

What is a personal pronoun? Name the personal pronouns.

Give in sentences examples of adverbial modifiers expressing—(a) time; (b) place; (c) degree; (d) means; (e) manner.

Write a complex sentence with an adjective clause modifying the direct object and let *who* be the connective.

POETRY.—1. Little Red Hen looked busily round

In search of a bit to eat,

'Till, hid in the straw and chaff, she found

A plump little grain of wheat.

"Now, who will plant this wheat?" she cried.

"Not I!" the goose and the duck replied.

"Not I!" said the dog and cat.

"Not I!" said the mouse and the rat.

"Oh, I will then," said the Little Red Hen;
And scratched with her quick little feet,
'Till a hole she dug, and covered it snug,
And so she planted the wheat.

2. Little Red Hen gave tender care;
The rain and the sunshine came down;
And the wheat grew green and tall and fair,
Then turned to a golden brown.
"Now, who will reap this wheat?" she cried.
"Not I!" the goose and the duck replied.
"Not I!" said the dog and the cat.
"Not I!" said the mouse and the rat.
"Oh, I will, then," said the Little Red Hen;
And so, in spite of the summer heat
She cut it at will with her trim little bill,
And so she reaped the wheat.

1. Write ten questions such as you would give a pupil in order to bring out the thought in the above selection. 10 points, five each.
2. Read a selection to be marked by the superintendent. 50

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. Why is Little Red Hen capitalized? 5

2. Where did she find the grain of wheat?
3. Is wheat always found among the chaff?
4. Why did she not eat the wheat?
5. Must we wait for others, or do our own work ourselves?
6. What care can we give wheat after it is planted?
7. When must we look for the harvest?
8. What is the thought concealed in these verses?
9. What kind of grain are we planting?
10. What will our harvest be?

PHYSIOLOGY.—1. (1) The liver is the largest gland in the body. It is situated in the abdomen on the right side. It secretes the bile which is necessary to digestion.

(2) The salivary glands in the vicinity of the mouth secrete the saliva.

(3) The spleen is in the left side of the abdomen. It has no duct, and is supposed to supply the corpuscles of the blood.

(4) Lachrymal glands, in the region of the eyes. They secrete the tears.

(5) The sebaceous or oil glands in the skin. They supply an oily substance to oil the skin and the hair.

4. The vibrations of the bell cause vibrations in the surrounding air; these are carried to the ear and directed into it by the external ear: these vibrations

the air cause the *memb'anum tympani* to vibrate. These vibrations are carried from the drum of the ear to the auditory nerve by means of a chain of four small bones. The auditory nerve in some mysterious way carries the vibrations to the brain.

ARITHMETIC.—1. Pupils should always be taught mental work in connection with their written work. Exercises devoted entirely to mental work should frequently be given. All multiplications, divisions, and all processes that can be performed mentally, should be so done. The power of thought that such work will give is one of the chief objects in studying arithmetic.

2. 3 bu. 2 pk. 5 qt. = 234 pt.
2 bu. 6 qt. 1 pt. = 141 pt.
234 pt. + 141 pt. = $1\frac{1}{2}$, Ans.
3. $20\frac{3}{4}$ A + $40\frac{1}{2}$ A = $61\frac{5}{8}$ A.
 $\frac{2}{3}$ of $61\frac{5}{8}$ = $102\frac{1}{4}$ Acres.
4. The amt. of \$1000 for the given time at 7% is \$1.1785.
\$1000 + 1.1785 = \$848.536, Ans.
5. 116 - 110 = 6% gain.
 $6 \div 110 = 5\frac{1}{11}\%$, Ans.
6. $\frac{1}{2} \times 4 = 2$
 $\frac{1}{3} \times 9 = 3$
 $\frac{1}{4} \times 12 = 3$

7 mon, Ans.

7. $998\frac{1}{8} = 998.4375$.
 $998.4375 \div 56.25 = 17.75$, Ans.

Point off from the right of the quotient as many decimal places as those of the dividend exceed those of the divisor.

8. The interest of \$1 for the given time at 6% is \$.2225.
\$.76.095 \div .2225 = \$342, Ans.
9. The compound interest of \$1.00 at 8% for 2 years is \$.1664.
The simple interest of the same sum for 2 years is \$.16.
.1664 - .16 = .0064.
\$120 + .0064 = \$18750, Ans.

10. Principal	\$ 1500
	.035
Interest due September 16, 1880.....	\$ 52.50
	1500
Amount " " "	\$1552.50
Payment.....	80
Balance due	\$1472.50
	.017%
Interest due January 1, 1881	\$26.01417
Payment.....	20.
Balance interest due.....	\$6.01417

	\$1472.50
	.034
Interest till July 25, 1881.....	\$50.0650
Interest unpaid January 1, 1881.....	6.0141
Principal.....	1472.50
Amount due July 25, 1882.....	\$1528.5792
Payment.....	600.
Balance due.....	\$928.5792
	.041½
Interest to April 1, 1882.....	\$38.2265
Principal.....	928.5792
Amount due April 1, 1882.....	\$966.8057 Ans.

GRAMMAR.—2. This is a compound sentence. We think in words, is the first member. We is the subject and think is the predicate. When we lack fit words, etc., is the second member. This member is a complex sentence, of which *We lack fit thoughts* is the leading clause. *We* is the subject, *lack* the predicate, and *when* the subordinate connective. The co-ordinate connective joining the two members is *and*.

3. *Glaciers* is a noun in the nominative case, used as the subject of *obey*.
Flowing is a participial adjective, modifying *glaciers*.
Mountain is an adjective, modifying *gorges*.
Law is a noun, objective case, and is the object of *obey*.
Faster is an adverb, modifying *flows*.
Sides is a noun in the nominative case, used as the subject of a verb understood.
5. a. I will give it to the one who needs it most. *Whomsoever* is in the objective case after *to*, and can not be the subject of the verb needs.
b. With peace *have* come many changes. *Has come*, singular, should be *have come*, plural, to agree with its subject changes.
c. Speak *slowly* and *distinctly*. *Slow* and *distinct* are adjectives, and should be adverbs to modify the verb speak.
10. He struck the man who insulted him.

SCIENCE OF EDUCATION.—2. The intellect embraces the following faculties of the mind: Perception, Memory, Imagination, Understanding, and Intuition or Reason. The complete training of the intellect would therefore include the culture and development of all of these faculties of the mind.

4. Object lessons cultivate the power of perception. A new meaning is given to words when the object which they describe is placed before the eye of the pupil. If a flower is to be studied, it should be placed in the hands of the pupil. Its form, size, shape, and characteristics can then be pointed out and understood and remembered.

5. That order of parts in which each step is a preparation for the one to

w, and which leads to it in a natural and easy manner. In passing from subject to another the mind must see the relation existing between them. In this relation is brought out clearly and distinctly, and the related parts brought together and each is thoroughly understood before the next is attended, the subject is logically developed.

Pedagogy is the science of teaching. It includes not only a knowledge of the subject taught and how to teach it, but a knowledge of the mind,—its laws of action and its laws of growth and development. Psychology gives the knowledge. It lies at the base of the science of pedagogy.

"Education is a leading out or developing of the powers whose germs the child possesses at his birth."—*Dr. Edwin C. Hewett.*

"A sound mind in a sound body."—*Locke.*

"Education is threefold: Man is educated by nature, by other men, and by things. The inner development of our powers and organs is the education of nature; the use we are taught to make of this development is the education of men; and what we learn by direct experience, from surrounding circumstances, is education by things."—*Rousseau.*

That method which is in accord with the laws of development of the mind. The representative powers of the mind are at first active and should be appealed to first. Memory and Imagination soon follow, while Reasoning and Reflection are last and are delayed. This indicates that the natural method should be—

- (1) Training in sense perception.
- (2) Proper expression by words.
- (3) Manual activity.
- (4) Reasoning and reflection.

The safety and permanence of republican institutions depend largely on the intelligence of the people. If the people are to be self-governing they must be intelligent. Hence the government has the right to see that all its citizens are intelligent, and to enforce compulsory education.

GEOGRAPHY.—3. The glacial drift comprises about four-fifths of the north- and eastern portions of the state. The surface, formed by the deposits of the glacial period, has been decomposed by the action of air and water and is a splendid loam, suitable for the cultivation of cereals and other farm products. The boulders and sand deposited in some localities are a hindrance to cultivation.

Land forming occurs along the sea-coast, where deposits of mud are brought down by the streams. The Mississippi and other rivers of the gulf region are gradually extending the land into the sea. The Jersey coast is said to be sinking, and the water is constantly wearing away the coast. A like effect is produced by the waves on rocky places of the Pacific coast.

MISCELLANY.

UNCIE has recently added *ten* teachers to its corps. In two years the number of teachers has increased from 20 to 37. W. R. Snyder is at the helm.

WABASH COLLEGE sends out the most tastefully arranged circular that has reached our table.

THE ODOM NORMAL will begin a ten-weeks term April 1, with Ezra Mattingly and A. A. Armen as principals.

A MEETING of the Supts. of Southern Indiana, S. Illinois, and W. Kentucky was held at Evansville February 28 and March 1.

THE RANDOLPH CO. NORMAL will open at Winchester for a term of seven weeks, June 9th, under the control of J. W. Denney, C. H. Wood, and F. S. Caldwell.

THE Chicago, St. Paul & Kansas City Ry. Co. offers a prize of \$100 for the best and most appropriate pseudonym, by any educator, to be paid within 30 days after the adjournment of the St. Paul meeting.

RIDGEVILLE.—The trustees of Ridgeville College have organized a Normal School in connection with the college, with J. E. Souers as principal. The college is out of debt and has an endowment of \$20,000.

SUMMER OUTING IN EUROPE.—Pres. D. S. Jordan and Prof. J. W. Jenks will visit Europe next summer, and will take with them a party of about twenty. For particulars write to either of the directors at Bloomington, Ind.

HARRISON CO. has sent out a Manual, which also contains full minutes of the Teachers' Institutes for 1888-'89. It fills 90 pages, exclusive of several pages of advertising, and contains much matter well worth preserving. Supt. C. W. Thomas is the power behind the throne.

PURDUE UNIVERSITY formally opened its new Electrical building February 3. This is one of the finest, if not the finest building of this class in the United States, and Purdue now offers facilities in this branch of its work not surpassed any place, East or West. Purdue is gaining ground every day.

DE KALB CO. has four commissioned high-schools, one graded township school, and two district graded schools. This county also has two editors who hold state certificates—J. A. Barnes, of the *Auburn Courier*, and E. M. Smith of the *Butler Record*. C. M. Merica is still Co. Supt. and pushing his work.

RUSH COUNTY.—Supt. R. F. Conover has issued a very neat and comprehensive Manual of his schools for 1889-'90. He uses the "course of study" adopted by the State Convention of County Superintendents, and urges teachers, school officers, and parents to join him in conforming to the course as the most efficient means of economizing time, money, and labor. Mr. Conover manifests an excellent spirit, and a high purpose to do everything in his power to promote the best interest of his schools. A joint-township institute will be held at Rushville March 8th, which will be largely attended.

THE NORTHERN INDIANA NORMAL SCHOOL at Valparaiso—the largest school of its class in the United States and perhaps in the world—is still on the "up-grade." The word is, "Never more prosperous"—"Everything booming."

school is now in its seventeenth year, and its remarkable and continuous growth is its best recommendation. H. B. Brown, the principal, is a person of remarkable powers and one secret of his success is his ability to select and associate with him, as instructors, kindred spirits who work with a *vim* and infuse it into whatever they undertake.

FOREIGN EDUCATIONAL NEWS.

RUSSIA.—How Church and State tease each other in Prussia is seen from a little incident. The school inspector at Graetz invited Rev. Provost Akaskey at Buck to the opening of the new school-house at Kazlows. But the provost did not wait for the day of the official opening; he appeared a few days earlier and consecrated the building according to church ritual. Then he sat down and wrote a polite reply to the invitation, in which he suggested that he had expected an invitation to a "consecration," not an "opening."

BRUNSWIC, GERMANY.—The teachers here are happy. Hitherto the lowest salary was \$300, the highest \$700. The City Council has decreed that the highest salary shall be \$750, and instead of serving *thirty* years before reaching this limit, it shall be given after *twenty-seven* years' service. "Every mickle makes a muckle."

NORWAY.—In the Storting, lower house of the Norwegian legislature, a very heated, if not heated, debate took place last year concerning the position of classical languages in high-schools. It was stated, that in every domain of human exertion new methods have been adopted, save in classical schools, where the young are still learning as they did during the middle ages. A great majority of the speakers recommended a radical change in the course of study; at the same time, they were cognizant of the danger of entering upon a new path in opposition to other countries which predominate in influence and number of inhabitants.

GREAT BRITAIN.—From England and Scotland numerous pupil-strikes are reported. On the 8th of October several hundred school-boys in Edinburgh marched noisily through the streets and threw mud at the school-houses, notably the Georgie school. Similar demonstrations took place on the same day in London, Cardiff, West Hartlepool, and Middlesborough. The strikers demanded a reduction of wages—pardon, a reduction in the number of school hours, and abolition of home-tasks. Those in Hartlepool wanted to have the morning session reduced to from 10 to 11.45, and the afternoon session from 3 to 4.30.

SOUTHERN INDIANA TEACHERS' ASSOCIATION.

TO BE HELD AT AURORA, MARCH, 26, 27, 28, 1890.

PROGRAM.

WEDNESDAY, March 26, 8 P. M.—Address of Welcome. Inaugural Address, by Capt. A. H. Graham, President.

THURSDAY, March 27, 9 A. M.—Development in the Recitation. 1. Supt. P. P. Stultz, Jeffersonville. 2. Prof. Monroe Vayhinger, Moore's Hill College.

Where Should Arithmetic Teaching Cease in the School Course? 1. Supt. W. J. Williams, Franklin. 2. Miss Leva M. Foster, North Vernon.

The Backward Boy. 1. Mrs. Emma Mont. McRae, Purdue University. 2. Supt. W. B. Owen, Edinburg.

THURSDAY, P. M.—Young People's Reading Circle. Prof. Joseph Carhart, De Pauw University.

The Educational Value of Diplomas. 1. Supt. W. F. Hoffman, Washington. 2. General Discussion.

The Superstition of Method. 1. Supervisor George F. Bass, Indianapolis. 2. Mrs. C. L. Olcott, Utica.

THURSDAY EVE., 7:30.—Lecture. Subject: The Holy Land. (Not Palestine.) Prof. Wm. J. Bryan, State University.

FRIDAY, MARCH 28, A. M.—Is the Young Man Safe? 1. Supt. J. H. Martin, Madison. 2. Mrs. L. S. Armen, Columbus.

The Bright Side of the Teacher's Life. 1. Mrs. Rebecca Rhiver, Greensburg. 2. Pres. E. A. Bryan, Vincennes University.

FRIDAY, P. M.—Miscellaneous Business. Talk on the Merchant of Venice. Pres. W. W. Parsons, State Normal. A. H. GRAHAM, Pres., Columbus.

EDITH SHOCKLEY, Sec'y, Lawrenceburg.

Notes.—The usual reduced fare—one and one-third fares for round trip—has been secured. Buy full fare tickets to Aurora, and take the agent's certificate, which, when signed by the Railroad Secretary, will entitle you to return ticket at one-third fare.

Entertainment will not exceed one dollar per day. He who expects to attend this meeting should not fail to notify F. D. Churchill when he will arrive and how long he expects to remain. Entertainment is abundant and excellent, but it is *important* that you do not come unannounced.

The names on the program make a successful meeting a foregone conclusion. Prof. Carhart's address will be delivered to the school children of Aurora; the teachers of course can hear it. There will be good music and plenty of it.

Come prepared to participate in the general discussions.

F. D. CHURCHILL, Ch'n Ex. Com.

NORTHERN INDIANA TEACHERS' ASSOCIATION.

ANNUAL SESSION WILL BE HELD AT COLUMBIA CITY, APRIL 3, 4, and 5.

P R O G R A M .

THURSDAY, April 3.—Visiting the Columbia City Schools.

7:30 P. M.—Prayer. Music. Address of Welcome: Judge J. W. Adair. Response: Mrs. Emogene Mowrer, Warsaw. Music: Glee Club. Address of Retiring President: Supt. T. J. Sanders, Warsaw. Inaugural Address: W. C. Palmer, Columbia City. Music: Glee Club. Miscellaneous Business.

FRIDAY, 9 A. M.—Paper: How to secure Teaching of Subjects instead of Text-books; Supt. W. C. Belman, Hammond. Discussion, led by Supt. J. K. [unclear], Marion. Paper: Science in the Grammar Grades; Supt. P. D. Crea- [unclear], Kendallville. Discussion, led by Dr. C. A. Dryer, Ft. Wayne. Paper: [unclear] in Intermediate and Primary Grades; Miss Grace Rowley, Elkhart. Discussion, led by Prin. H. L. Wilson, Rensselaer. Appointment of Com- [unclear]tees.

100 P. M.—Paper: The Head and the Hand; Supt. W. H. Sims, Goshen. Discussion, led by Supt. M. W. Harrison, Wabash. Paper: Uniformity in [unclear]ses of Study; Supt. D. K. Goss, Lebanon. Discussion, led by John A. [unclear]hrock, Supt. White County. Paper: Apportionment of School Revenues; [unclear] G. Machan, Supt. La Grange County. Discussion, led by Supt. R. I. Ham- [unclear]n, Huntington.

100 P. M.—Music: Glee Club. Lecture: "The Recitation"; George [unclear]wland, Supt. Chicago Schools.

SATURDAY, 9 A. M.—Paper: The Relation of the Superintendent to the [unclear]ools in his Charge; Supt. J. F. Scull, Rochester. Discussion, led by Supt. [unclear] A. Allen, Bluffton. Paper: Industrial Drawing in the Public Schools; Miss [unclear] A. Hill, of South Bend. Discussion, led by Supt. G. G. Manning, of Peru. [unclear]er: Relation of Country Graded Schools to City Graded Schools; Supt. [unclear] T. Reid, Winamac. Discussion, led by J. W. Denny, Supt. Randolph Co. [unclear]ort of Committees.

For further information address the President and Chairman of Executive [unclear]mmittee, W. C. Palmer, Columbia City.

THE SOUTHERN INDIANA NORMAL, at Mitchell, reports progress and pros- [unclear]ity with an emphasis. If you wish to know all about it, write to E. F. Suth- [unclear]nd, the head.

It is about settled that the World's Fair for 1892 will be held at Chicago.

PERSONAL.

W. L. Peck is principal at Sellersburg.

Harvey Lantz is now serving his second year as superintendent of the Spencer [unclear]ools.

C. H. Wood, Supt. of the Winchester schools, reports his work as moving on [unclear]asantly.

Temple H. Dunn is still at the helm at Crawfordsville, and was never doing [unclear]ter work.

State Supt. La Follette, L. H. Jones, W. W. Parsons, R. G. Boone, and Dr. [unclear]n S. Irwin, represented Indiana in the National Supts. Association recently [unclear]ld in New York City. They report an excellent meeting.

W. H. Glascock will remain in charge of the Greenfield schools next year at an increase of \$200 on his salary. *Good.*

S. E. Harwood still holds sway at Attica, and the local press commends his work in strong terms.

T. S. Merica has resigned the superintendency of the Garrett schools, and F. M. Merica has been promoted to take his place.

James M. Turner, of Rising Sun, has been appointed Supt. of Ohio county, to fill the vacancy caused by the death of Mr. Deweese.

S. S. Parr, well and favorably known to many teachers in this state, is finding his work pleasant as Supt. of the schools at St. Cloud, Minn.

P. S. Tracy, the efficient superintendent of the schools at Andrews, has been engaged to teach Pedagogy in the Normal at Ridgeville, to open April 1.

W. W. Knowles has severed his connection with the Continental Sub. Co., and is now in the general school supply business, at 93 Adams St., Chicago.

State Supt. La Follette is a candidate for nomination to represent his district in Congress, and his friends think he stands an excellent chance for success.

W. N. Hailman, Supt. of the La Porte schools, has been engaged to do institute work next summer, at Martha's Vineyard, Chautauqua, and at Freeport, Illinois.

W. H. Fertich, well known as an institute worker in this state, now Supt. of the schools at El Dorado, Kan., will engage to do some institute work the coming summer.

W. R. Humphrey, principal of the Normal at Covington, makes a good report and expects to open his 4th term for this year April 1, with a still larger increase in attendance.

J. W. Carr, principal of the Muncie high school, recently read a paper before the Historical Club that met in Indianapolis. It was well spoken of by those who heard it.

Wm. M. Croan, formerly Supt. of Madison county, is still "booming" his normal school at Shenandoah, Iowa. He now claims the largest school west of the Mississippi.

John M. Sullins has been appointed to fill out the unexpired term of W. H. Caulkins as Supt. of Tippecanoe county. He has already entered upon his duties and is hard at work.

Geo. A. Osborn, former Supt. of the schools of Grant county, and one of the best men in the state, has been nominated for auditor of Grant county, and stands a good chance to "get there."

Prof. E. P. Cole, died at his home in Bloomington January 29. He was one of the pioneers in educational work in this state, and next month's Journal will contain a brief sketch of his life and work.

Thomas Charles, an old Indiana teacher, is located at 75 Wabash Avenue Chicago. If you want anything in the kindergarten line, or any school supplies write him and he will take special pains to give you what you want.

V. B. Flick, school superintendent of Marion county, is a candidate for nomination to the office of county recorder. He is an excellent superintendent and an honorable man, and his party can not do better than to nominate him.

Dr. D. J. Walker, Principal of the State Normal School at Bloomsburg, Pa., has been appointed by Gov. Beaver Supt. of Public Instruction for Penn., to fill the vacancy caused by the death of Dr. Higbee. He is said to be a strong candidate.

Geo. W. Thompson, state manager of "The Indiana League Teachers Bulletin," is one of the faculty at the State Normal school. Mr. Thompson's standing as an honorable gentleman, who can be entirely trusted, is unquestioned.

Grant Deweese, Supt. of Ohio county, died at his home in Rising Sun, Feb. 10. He was counted among the best of county superintendents, and was a person of many noble traits of character. He had been in ill health for some months.

H. P. Leavenworth is serving his first year as Supt. of schools at Mt. Vernon, and report says that the schools are in a prosperous condition. The fact that his teachers take the full Reading Circle work speaks well for both teachers and superintendent.

A. H. Morris, former Supt. of Hamilton county, but for several years past Supt. of the Soldiers' Orphan Home at Knightstown, has recently been deposed. While there is not a word to say against the gentleman who has been appointed to take his place, it seems a great pity that a most worthy christian gentleman and faithful officer should be set aside, simply because a majority of his board of trustees happen to belong to "the other party."

David M. Geeting, the first assistant of State Supt. La Follette, has recently died with another sad affliction in the death of his youngest brother, Royal. This is the second brother Mr. Geeting has lost in the last six months. It will also be remembered that he lost a beautiful little daughter last May; also that his wife's mother deceased last October.

In these numerous and almost overwhelming afflictions, Mr. Geeting and his wife can rest assured that they have the profound sympathy of their numerous friends.

BOOK TABLE.

AUTHORS' BIRTHDAYS, 111 pages, 25 cts., paper cover—a good thing. S. R. Linnell & Co., Chicago.

THE CENTURY, printed at Union Square, New York, is a model literary magazine. It is hard to see how it could be improved.

THE ST. NICHOLAS continues to rank at the head of juvenile magazines. It employs the best writers and the best artists. Address, Union Square, New York City.

THE WASHINGTON JOURNAL OF EDUCATION, printed at Seattle, is the educational representative of the new state, and represents it well. This paper shows marked vigor and mental fibre, and deserves a liberal patronage.

THE CENTRAL NORMAL POST is a folio bi monthly, published at Danville, and is devoted to normal principles and practical education. All friends of the Central Normal will be especially interested in its personal and news items.

THE LADIES' HOME JOURNAL, published in Philadelphia, has in its March issue an article on "Mrs. Harrison's Daily Life in the White House," prepared with the consent and assistance of Mrs. Harrison. The article is illustrated and is very entertaining.

THE KINDERGARTEN, Chicago (an illustrated monthly, \$2 per year). This magazine is always bright and helpful in an educational way. The series of Systematic Science Lessons, by Prof. Howe, of the Harvard School, of Chicago, is being widely used by teachers.

THE Dr. Higbee Memorial Number of the *Pennsylvania School Journal* is twice the ordinary size, comprises 80 pages, and is filled from cover to cover—except a half dozen pages occupied by selections from Dr. Higbee's hymns, poems, etc.—with such tributes to the ability, learning, and influence of this remarkable man as make it something unique in our educational literature.

THE BREEDERS' GAZETTE is a weekly 3-column 24-page paper with a cover, and is one of the handsomest stock journals in the country. While it gives special attention to breeding stock of all kinds, it also discusses feeding, treatment, care, and everything pertaining to stock raising. It would be of great value to any one interested in stock raising. Address, Breeders' Gazette, 226 La Salle Street, Chicago.

HOME AND SCHOOL VISITOR, published at Greenfield, Ind., by D. H. Goble, at 75 cents a year, is one of the most successful papers of its class in the country. It is now in its tenth volume and has a large circulation. The supplementary reading feature makes it of special value to all the lower grades of the school. The new "head" to the *Visitor* is very attractive. The paper is worthy of the success it has had.

THE MARCH ARENA is peculiarly interesting to the lovers of dramatic art, as Modjeska's description of her débuts in San Francisco and London appear in this issue, and are written in a manner that is sure to captivate all readers. A fine portrait of Modjeska as Ophelia accompanies this paper. A. C. Wheeler (Nym Crinkle), the brilliant dramatic critic, also has a thoughtful paper in this same number entitled, "The Extinction of Shakespeare."

THE SWINE BREEDERS' JOURNAL, issued semi-monthly, at Indianapolis, for \$1.00 a year, is just what its name indicates. It has just begun to be fully realized that it costs no more to raise a good hog than it does to raise a scrub, and that there is a great deal to learn as to the care of hogs. Never before was there so much interest taken in swine breeding and swine raising, and a wise

will read and thus avoid the mistakes of others and profit by their experiences. The *Swine Breeders' Journal* will pay for itself several times over if carefully read by any hog raiser.

THE January number of the *AMERICAN NATURALIST* is at hand. It is a large noteworthy number, containing, beside another instalment of E. L. Sturtevant's learned and valuable treatise on the "History of Garden Vegetables," an illustrated article by J. W. Fewkes, on the curious habits of certain Sea-Urchins boring holes in the rocks to which they are attached, and a suggestive article by R. C. Stearns on "The Effects of Musical Sounds upon Animals." The various departments of matter of scientific interest are especially full and interesting in this issue, and the whole constitutes a valuable resume of the recent work and thought of the scientific world. No person whose interests are in this can afford to be without the *Naturalist*. Ferris Bros., Publishers, Phila.

COMPLETE MANUAL OF ENGLISH LITERATURE: By Thos. B. Shaw. New York: Sheldon & Co. Alex. Forbes, Chicago, Western Agent.

This is one of the standard text-books on English Literature, and one of the best. The author died while revising it, and the work was completed by Wm. B. Ewald, LL. D. There has also been added "A Sketch of American Literature," by Henry T. Tuckerman.

The bulk of the work is devoted to the great authors, Shakespeare, Milton, etc., and short notices are given of minor authors, not so much to be read in course as for convenience in reference—a good idea. But few books contain so much matter within the limits of 500 pages.

SMITH'S COMPLETE ALGEBRA, TO ACCOMPANY RAY'S SERIES OF MATHEMATICS: By Geo. W. Smith. Cincinnati: Van Antwerp, Bragg & Co.

The author has given in this one volume of 358 pages the essential principles of algebra and all that a student needs to enter the best colleges of the country. He has fully discussed the law of signs and tried to make clear the law which determines whether the correct answer to $6 + 4 \times 2 = 20$ or 14,—and to avoid similar troubles.

Every principle is stated clearly and then profusely illustrated. The subject of numerical values is given special attention, and detached co-efficients are more fully treated than in most elementary books.

All in all the book is very full and complete, and presented from the standpoint of a practical teacher. It deserves large success.

EXERCISES IN WOOD-WORKING: By Ivin Sickels, M. S., M. D. New York: D. Appleton & Co.

This book is designed to go into the hands of manual training classes in high schools and colleges.

Part I. treats of the growth, decay, preservation, qualities, and uses of woods, and other kindred topics. This feature of manual training work is much more fully treated here than in any other book that has come to us. About one-third of the book is devoted to this part.

In Part II. is given about thirty exercises in bench-work, which is followed by a dozen exercises in building construction, stair-building, bending wood, pattern-making, and finishing. The work on stair-building and pattern-making is so meager as to very much impair its value.

Each exercise is accompanied by instruction, and a drawing of the thing to be made. The instruction is clear and brief. The matter is so arranged that the instruction and drawing are both in sight at once.

A LARGE HISTORY OF THE UNITED STATES: *By Thomas Wentworth Higginson. New York: Harper & Brothers.*

The above work is comprised in two volumes, the first of which is now on the writer's table. It includes Jackson's administration. "Higginson's Young Folks' History of the United States" has for years been regarded as one of the most attractive books of its class ever written. Its high appreciation grows out of the fact that it tells the story of the growth of the country in a most attractive manner, giving special attention to the character of the people—their manners, habits, modes of living, institutions, etc.—rather than to the details of the war record.

This larger work follows the same general style of the smaller book, but treats the subject more exhaustively. No author has surpassed Mr. Higginson in grouping the vital points of history and setting them forth in a logical and at same time attractive style.

This is not intended as a school book, but if possible every teacher of history should have it on his table. It gives a larger, fuller view of principles and institutions upon which our nation is founded than most other authors in the same space, and is therefore very valuable as a reference book.

The make-up of the work is unsurpassed.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

NORTH MANCHESTER COLLEGE—COURSES: Teachers', Business, Literary, Music, Art, Short-Hand, Type-Writing, Collegiate. 3-31

SUPT. W. H. FERTICH, formerly of this state, has a good timber claim of 160 acres which he can relinquish for only \$400. Write him at El Dorado, Kan.

FIVE ENERGETIC TEACHERS to represent us on a valuable specialty in school apparatus. Steady employment for an indefinite period or for vacation only. For particulars address O. W. Close, 315 Wabash Ave., Chicago, Ill. 3-21

TEACHERS wishing to buy a musical instrument of any kind should write to, or call upon D. H. Baldwin & Co., Indianapolis. If you can not be suited by this house in both style and price, it is hardly worth while to go elsewhere.

Teachers Desiring Better Positions or Larger Salaries should con- sider the Following:

. A list of nearly 2000 (Two Thousand) POSITIONS, which have
been filled by The Teachers' Co-operative Association, Chicago, is sent by
mail to any teacher on application, names of teachers located, and dates given
in full.

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the States west of New York.

. No other agency has filled fifty (50) positions in the same territory in the
same length of time.

. The ten highest salaried positions in ten states open to competition, were
filled through this Association, viz: Michigan, \$1800; Wisconsin, \$1800; Min-
nesota, \$1500; Iowa, \$2000; Arkansas, \$2000; Illinois, \$1700; Dakota two,
one at \$2000 and one at \$1800; South Carolina, \$2000; Missouri, \$1500; Ohio,
\$1000.

. The testimonials of the Association are not numbered by the dozen, they
come from (1) hundreds of teachers; (2) from every state; (3) from those who
have had actual experience with the agency in securing a position, or a teacher;
they are of very recent date, 1889-1890.

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We have vacancies, some in almost every State in the Union, for the Fall
of 1890, for the following teachers:

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High School Assistants.....	" " 450 " 1,500
Principalships, town schools.....	" " 500 " 900
Grammar, Intermediate and Primary.....	" " 35 " 85

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Several College Presidencies.....	
One Normal Presidency.....	Salary, \$2,000
Latin Prof. for Univ. (must have studied abroad) ..	" 1,600
Prof. of Mathematics.....	" 1,200 to 1,500
Several College and Normal Professorships.....	" 800 " \$2,000
Director of Music for Normal.....	" 900 " 1,500
Several Lady Teachers of Music.....	
Reading and Eloquence.....	" 900
Training Teacher, City Normal.....	" 550
Lady Teacher of Art.....	

It is well known to authorities that the Teachers' Co-operative Association
never recommends a teacher who will not succeed. It is impartial in its work.
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cided upon,

If you are a good teacher and are looking for a better salary, or a live grow-
town where hard work will be appreciated, write to us for circulars. All
communications are strictly confidential. Send a postal with your address.
If better, write fully your qualifications, experience, kind of a position you want

and location. This will enable us to reply fully and save you time. The new large Manual of the Association sent free on application.

Address, **TEACHERS CO-OPERATIVE ASSOCIATION,**
ORVILLE BREWER, Manager. 70 Dearborn St., Chicago.

A special arrangement will be made with any Teacher or Superintendent who wishes to act as agent for the Association in cities and towns where we have not already appointed an agent. Such appointments will only be made after a thorough investigation of character and qualifications of applicant for the work. 3-tf

TEACHERS, IF YOU WANT A MEDAL for your school, send for my Illustrated Catalogue and Price-List. **D. J. RAWISZER**, Pearl River, New York. 3-4t

WHEN teachers want anything in the clothing line, they should call on Peter Gramling & Son, Indianapolis. This is one of the oldest and best, and at the same time most reliable clothing houses in the state. They sell ready-made clothing and they also make to order. Give them a call. 3-?

WANTED, TEACHERS! We already have on our books over two hundred vacancies for September. Many of them are from our former patrons. They are for College Presidents and Professors, for Superintendents and Principals, for High School and Grade teachers, for Specialists in Music, Art, Elocution, Commercial Branches, etc. Our vacancies are DIRECT FROM EMPLOYERS. Send for our Manual. New vacancies come in daily.

Address, **C. J. ALBERT, Manager,**
SCHOOL AND COLLEGE BUREAU, Elmhurst, Ill. 3-tf

B. A. BULLOCK, for many years a teacher, is now connected with a mercantile agency in this city, and is now in a position to furnish teachers profitable employment throughout the year, or during their vacation. Mr. B. has placed quite a number of ex teachers in good paying positions during the past year, both in this and in other states. We would suggest that gentlemen who think of leaving the profession for more profitable work, correspond with him. Office No. 24½ E. Washington Street, City. 3-1t

J. A. WRIGHT, M. W. NETHERCUTT, and C. O. MALIN, well-known among Indiana teachers, now control the sale of the "American Manikin," dissecting parts of steel, pronounced the best by every one who has seen it. Superintendents and teachers desiring pleasant and profitable employment will do well to investigate it. Address Wright Publishing House, 800-818 Royal Insurance Building, Chicago. 3-1t

TEACHERS WANTED.—To sell Stanley's Wonderful Adventures in Africa. You can make more money in the next three months selling this wonderfully attractive and popular historical work than you can make at any other business. For full particulars and extra terms to teachers, address at once, **A. L. STONE**, State Agent, Frankfort, Indiana. 3-1t

CATARRH—Catarrhal Deafness, Hay Fever.

A NEW HOME TREATMENT.—Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and ear-tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by **A. H. Dixon & Son**, 337 and 339 West King Street, Toronto, Canada. Sufferers from Catarrhal troubles should certainly read the above.—*Christian Advocate*. 1-17

WANTED.—We are requested to find a well-educated man or woman of journalistic aspirations, preferably of experience in teaching as well as in business, who wishes a steady position as a business and editorial assistant, in the office of an educational journal. For the right person a good salary is waiting. Give reference, qualifications, and salary expected. Apply immediately.

TEACHERS' CO-OPERATIVE ASSOCIATION,
70 Dearborn Street, Chicago, Ill.

3-11
CURRENT EVENTS.—If you wish to try teaching current history in your school you can get 20 copies of *THE WEEK'S CURRENT*, all to one name, for any 10 weeks between now and June 16, for only \$2 00. This is a special trial offer, it does not cover renewals. Any order amounting to \$2 00 or more will be accepted at same rate. *THE WEEK'S CURRENT* is the only WEEKLY school newspaper published.

Address, THE WEEK'S CURRENT,
Oak Park, (Chicago), Ill.

3-11
A GREAT REDUCTION in subscription rates is announced by the publishers of *The Breckers' Gazette*. This beautifully printed and handsomely illustrated periodical is so generally conceded to stand at the head of all papers of its class that we need only say that it is regarded as an *absolute necessity* by all who are making a study of the breeding, feeding and management of any description of live-stock. It has heretofore cost \$3 00 per year, but can now be had, under a special offer just announced, at \$2 for single subscriptions, and at \$1.50 where five names or more are obtained. Send for sample copy and terms and list of prices to agents, to the publishers, the J. H. SANDERS PUB. CO., 226 La Salle Street, Chicago, Ill.

GENTLEMEN desiring profitable employment during the coming vacation, or to take a permanent engagement, will find it to their interest to correspond with the American Collecting and Reporting Association, B. A. Bullock, Manager, 14½ East Washington St., Indianapolis, Ind.

2-2t

CINCINNATI, WABASH AND MICHIGAN RAILWAY—The Elkhart Line.—Three through Trains Daily (except Sunday), between Indianapolis and Benton Harbor. Direct connection at Benton Harbor for Grand Rapids, Muskegon, and all Michigan points, and for Chicago via the Detroit & Cleveland and Gram & Morton boat lines. About May 20th we will put on a line of new Combination Sleeping and Chair Cars on night trains between Indianapolis and Grand Rapids; also a line of Chair Cars on day trains. For time of trains, rates, etc., see any ticket agent, or

J. B. HARTER, General Agent,

E. H. BECKLEY, G. P. & T. A., Spencer House, opposite Union Depot, Elkhart, Ind.

2-tf

Indianapolis, Ind.

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the League as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page.

1-tf

A NEW METHOD OF TREATING DISEASE.—Hospital Remedies.

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This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, statistics prove, have ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

1-1y

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Good Active Men to spend the Summer selling our trees and plants. Liberal terms. Good references required. Bank reference preferred.

For price list of trees and plants, and terms to agents, Address,

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Spring Term begins March 9, 1888.

For new catalogue and other information, address,

10-11

L. J. ALDRICH, PRESIDENT, Merom, Sullivan Co., Ind.

INDIANA SCHOOL * JOURNAL.


VOL. XXXV.

APRIL, 1890.

No. 4.

*INDIANA TEACHERS' READING CIRCLE.**

H. D. VORIES, SUPT. JOHNSON COUNTY.

HE INDIANA TEACHERS' READING CIRCLE originated in a set of resolutions adopted by the State Teachers' Association in 1883, and the first course was put out to the teachers in 1884. Its object, as set forth in the first resolution, is "to inaugurate an organization among the teachers of Indiana for reading and study, to be known as the 'Indiana Teachers' Reading Circle.'"

Now, the benefits arising from such an organization, if carried out in its fullness, as expressed in the resolution, "reading and study," (and especially "study"), would be, and I think in a degree has been, the following:

- (1) It suggests good books to teachers they would probably otherwise not know of.
- (2) It is an incitant to systematic study not otherwise secured.
- (3) It gives to the individual the enthusiasm that comes from numbers. The International S. S. Lessons furnish an example of the influence of numbers and system.
- (4) It offers special knowledge of the principles of teaching, and a general knowledge of the history and progress of education. These are here gained with the minimum outlay of study and cost.
- (5) It gives culture and discipline the teachers would hardly get outside of it. These are plainly discernible in the examinations and reviews submitted.

* Read at the last State Convention of County Superintendents.

(6) It gives range of general information and broadness of mind superior to that offered by any other agency except the higher institutions.

(7) It makes the teacher a student and thereby brings him into more direct sympathy with his pupils—an indispensable element of true teaching.

(8) Finally, it offers to the ambitious but pecunious teacher an opportunity to fit himself for better work and better salary.

Does it accomplish all these in the highest degree possible? I think not. It yet remains for it to do so. Why has it not? Because (1) the work has been too heavy and is yet too heavy; and (2) because it has been crowded out of the Township Institute because of its "muchness," and entrusted to weekly or bi-weekly evening meetings, which I think have proved futile.

Whom is this work to benefit most? I think we all agree that it is for the average teacher. Very well. Who is the average teacher? Let us see.

I find in the State Superintendent's Report, 1885-6, the last one issued, that of all the teachers licensed for the year 1886, 77.5 percent received less than 24 months; that is, they received 6 or 12 mos. license, leaving only 22.5 percent who received more than 12 months.

Now the number of teachers employed for 1886 (white and colored), was 13,343. Counting that all who held the higher grade licenses were employed, we have 3,002; while we must have had 10,341 teachers employed who held 12 months or less.

Taking this year as typical, where would the average be?

The average school term for the state (same year) was 129 days—six months—six Township Institutes.

Now we have the average teacher and the average time allowed for him to do the work, as experience has taught us that work outlined for vacation is too seldom done to be considered here.

Now, let us see what has been and is required of this average teacher in this average time—only six effective lessons—six Township Institutes.

In 1884-5 we had:—

(1) Brooks's Mental Science, pp.	318
(2) Barnes's General history, "	600
(3) Parker's Talks on Teaching, pp.	182

In 1885-6 we had:—

(1) Smith's English Literature, pp.	419
(2) Hewett's Pedagogy, pp.	220
(3) Brooks's Mental Science (finished) pp. . . .	186

825

In 1886-7 we had:—

(1) Watts on the Mind, pp.	200
(2) Hailman's Lectures, "	249
(3) Green's History of the English People, pp. . .	803

1252

In 1887-8 we had:—

(1) Sully's Psychology, pp.	414
(2) Lights of Two Centuries, pp.	603

1017

In 1888-9 we had:—

(1) Compayré's History of Pedagogy, pp.	570
(2) Hawthorne's Marble Faun, pp.	259
(3) Carlyle's Heroes and Hero Worship, pp. . . .	178

1007

In 1889-90 we have:—

(1) Compayré's Lectures on Pedagogy, pp. . . .	476
(2) Steele's Zoology, pp.	286

762

Now, if the object had been "reading" instead of "reading and study," the number of pages would not amount to so much; but it is "reading and study," and if much benefit is to be reaped it must be mostly "study." And a glance at the course of study will show that it will take close and prolonged study for this average teacher to reap the greatest benefit from the course. The old adage says, "Reading is like eating, it must be assimilated to be beneficial."

Now each year's course has contained some work on psychology or psychology and pedagogy combined—and this is right. It should contain such work. But what kind of work does this imply from our average teacher? As everybody knows, pedagogy is based on psychology, and if no discussion of psychology is given in the volume, a reasonable familiarity with the laws of mind is presupposed.

Let us see what our representative higher institutions think of the time

required to learn, fairly well, psychology and its related sciences, all of which have been more or less discussed in our Mental Science line of work. (Indiana University, Franklin College, Wabash College, Lake Forest University, Valparaiso Normal, Danville Normal, etc.) We find they require from two terms of five hours per week, to a whole year of three or four hours per week—and that, too, in almost every instance in the senior year, after the mind is well disciplined.

Let us inquire what our average teacher was doing when we expected him to do this, and more, in about half, or two thirds, at most, of the time required of the college or normal student.

- (1) 6 hours teaching.
- (2) 1 hour traveling to and from school.
- (3) 1 hour at noon.

(4) 2 hours for preparation for his daily recitation—total, 10 hours of hard work and employment. Tired mentally and physically. Allowing Saturdays for attending to his institutes and his business matters, we conclude, and rightly too, that most, if not all, of his Reading Circle work has to be done on school days; and we see that but little time remains if he attends to his school duties as he should,—and, too, this work must be done largely while he is tired mentally and and physically.

And, greatest of all, the work is too great to be done at the Township Institute,—the only place where it will continue to be done effectively without crowding out everything else,—which would be a serious detriment.

I think then I am warranted in the conclusion that the work should be shortened and lightened so that it can be read and assimilated by the average teacher, and each lesson brought within a reasonable compass for Township Institute discussion; and then I think each teacher will feel that he can verify the statements and supplement the discussion with his own experience; and I think each one will read and do his work with avidity, and not perform his Township Institute Reading Circle duty in a perfunctory way, as is now too frequently the case. And, too, trustees will be willing for it to come into the Township Institute.

I am warranted in this in the fact that better work has been done in the lighter and shorter works, notably Watts, Hewett, and Hailman. The information has been more definite and therefore more usable, and more interest has been induced in the shorter works.

I think the county superintendent should be the county manager, and the work of each teacher for each Township Institute made known then. This can be done in the county manual or in brief outlines of township institute work.

I think it would be of special aid for the board of directors to prepare outlines for Reading Circle work, showing the salient points to be brought out of each lesson, giving derivations of technical terms, etc., etc.

The books selected for this year, Compayré's Lectures on Pedagogy, (\$1.25), and Steele's Zoology (\$1.00—total \$2.25), are good, and the price is not high.

I am heartily in sympathy with the Reading Circle work, and know it to be of great benefit, crowded and difficult as the work has been and is. Full praise is due the board of directors of the Reading Circle work; but in all candor, and in full appreciation of the great good the R. C. work has done for our schools, I am fully convinced that much better results would come from a lighter course.

We take great pride in comparing the enrollment in the outset with each succeeding year, and the increase is gratifying; but the number enrolled is not so significant as it might be, because there has been such a rivalry existing between the county superintendents and their county boards to see who could enroll the greatest percent of the teachers, that the club of disfavor has been held over the teacher, and thereby is diminished the significance that would otherwise attend the greater enrollment. Teachers buy the books, but in many instances do not read them.

This compulsion should not be carried too far. It should rather be made a matter of growth of favorable sentiment.

I believe, too, it could very profitably be made a circle in that we return to the same books again—for two reasons: (1) I think we could very profitably re-read most of the books that have been read; and (2) it would lessen the expense.

Or the work should be so light as to be completed satisfactorily in one year.

THE CAPTAIN'S WELL.

BY J. G. WHITTIER.

[From the New York Ledger.]

THE story of the shipwreck of Captain Valentine Bagley, on the coast of Arabia, and his sufferings in the desert, has been familiar from my childhood. It has been partially told in the singularly beautiful lines of

my friend, Harriet Prescott Spofford, on the occasion of a public celebration, at the Newburyport Library. To the charm and felicity of her verse, as far as it goes, nothing can be added ; but in the following ballad I have endeavored to give a fuller detail of the touching incident upon which it is founded.

From pain and peril, by land and main,
The shipwrecked sailor came back again ;
Back to his home, where wife and child,
Who had mourned him lost, with joy were wild,
Where he sat once more with his kith and kin,
And welcomed his neighbors thronging in.

But when morning came he called for his spade.
"I must pay my debt to the Lord," he said.

"Why dig you here ?" asked the passer by ;
"Is there gold or silver the road so nigh ?"

"No, friend," he answered : "but under this sod
Is the blessed water, the wine of God."

"Water ! the Powow is at your back,
And right before you the Merrimack,
And look you up, or look you down,
There's a well-sweep at every door in town."

"True," he said, "we have wells of our own ;
But this I dig for the Lord alone."

Said the other : "This soil is dry, you know,
I doubt if a spring can be found below ;

You had better consult, before you dig,
Some water-witch, with hazel twig."

"No, wet or dry, I will dig it here,
Shallow or deep, if it takes a year.

In the Arab desert, where shade is none,
The waterless land of sand and sun,

Under the pitiless, brazen sky
My burning throat as the sand was dry ;
My crazed brain listened in fever-dreams
For splash of buckets, and ripple of streams

And opening my eyes to the blinding glare,
And my lips to the breath of the blistering air,
Tortured alike by the heavens and earth,
I cursed, like Job, the day of my birth.

Then something tender, and sad, and mild
As a mother's voice to her wandering child,
Rebuked my frenzy; and, bowing my head,
I prayed as I never before had prayed:

*Pity me, God! for I die of thirst;
Take me out of this land accurst;*

*And if ever I reach my home again,
Where earth has springs, and the sky has rain,*

*I will dig a well for the passer-by,
And none shall suffer with thirst as I.*

I saw, as I passed my home once more,
The house, the barn, the elms by the door,
The grass lined road, that riverward wound,
The tall slate stones of the burying-ground,
The belfry and steeple on meeting house hill,
The brook with its dam, and gray grist-mill,
And I knew in that vision beyond the sea,
The very place where my well must be.

God heard my prayer in that evil day;
He led my feet in their homeward way,

From false mirage and dried-up well,
And the hot sand-storms of a land of hell,

Till I saw at last, through a coast hill's gap,
The city held in its stony lap,

The mosques and domes of scorched Muscat,
And my heart leaped up with joy thereat;

For there was a ship at anchor lying,
A Christian flag at its mast-head flying,

And sweetest of sounds to my home sick ear
Was my native tongue in the sailor's cheer.

Now the Lord be thanked, I am back again,
Where earth has springs, and the skies have rain,

And the well I promised, by Oman's Sea,
I am digging for Him in Amesbury."

His good wife wept, and his neighbors said:
"The poor old captain is out of his head."

But from morn to noon, and from noon to night,
He toiled at his task with main and might;

And when at last, from the loosened earth,
Under his spade the stream gushed forth,

And fast as he climbed to his deep well's brim
The water he dug for followed him.

He shouted for joy: "I have kept my word,
And here is the well I promised the Lord!"

The long years came, and the long years went,
And he sat by his road-side well content;

He watched the travelers, heat-oppressed,
Pause by the way to drink and rest,

And the sweltering horses dip, as they drank,
Their nostrils deep in the cool, sweet tank;

And grateful at heart, his memory went
Back to the waterless Orient,

And the blessed answer of prayer, which came
To the earth of iron and sky of flame.

And when a wayfarer, weary and hot,
Kept to the mid road, pausing not

For the well's refreshing, he shook his head;
"He don't know the value of water," he said;

"Had he prayed for a drop, as I have done,
In the desert circle of sand and sun,

He would drink and rest, and go home to tell
That God's best gift is the wayside well!"

[*Note from the New York Independent.*]

John G. Whittier, who is now eighty two years old, is about the liveliest man of his generation. He is vigorous, both in body and mind, and can do as good work as ever. His last poem, "The Captain's Well," which he wrote for the *New York Ledger* in his eighty-second year, and which we print on another page, is one of the strongest, most beautiful,

most finished productions that ever came from his pen. Mr. Whit- in sending "The Captain's Well" to the *Ledger*, wrote to the pub- ers of that paper that it would probably be the last poem he would write; but we hope that in this he was mistaken. The venerable did not fix any price upon "The Captain's Well," but left the remu- tion to Messrs. Robert Bonner's Sons, and they sent him a check \$1,000. Such liberality touched the old man deeply; especially be- (as he characteristically wrote) it enabled him to give more than ad hoped to be able to bestow upon certain charitable enterprises were near to his heart.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

GIVE THE PUPILS A CHANCE.

ALLOW the pupil to say what he wishes to say on whatever subject he is asked to talk about. Teacher, how would you like to have some interrupt you two or three times before you finish your first sentence a subject that you have been asked to explain? Suppose you were ing a paper on *superstition*, and your first sentence is, "Ignorance is of the factors of superstition." Now you begin to read and get as as "Ignorance is"—and some one says, "Now what do you mean *ignorance*?" Wouldn't you feel like telling him to wait awhile and he not be so ignorant?

re pupils ever treated so? A pupil begins to explain a problem in mmetic, and he does not start out just as the teacher thought he would he is stopped and questioned on this and that till he does not know own name.

problem.—A bought 75 shares of stock at 94 and sold it at 5 per cent. nium. What did he gain, the par value of each share being \$50? he pupil has solved by getting the cost of the 75 shares at 94 and finding the amount for which they were sold, and then finding the erence between the two. Of course this is correct. But the teacher ks that it is better to find gain on one share first and multiply that by or the total gain. Everybody knows this is right too, and possibly best.

The pupil begins to explain as follows: "The par value of 75 shares at \$50 is"— Tr. What do you want the par value for? The pupil is somewhat bothered and hesitates a little, and the teacher says, "Do you think that is the best way to do that problem?" Pu. I thought that was right. Tr. What is the cost of one share? Pu. 94. Tr. 94 what? Pu. 94 per cent. Tr. Well, what of? Pu. Par value. Tr. Of what? Pu. One share. Tr. Well, now what is the par value of one share? Pu. \$50. Tr. Well, now, go on.

He begins again as he did before, and is stopped again and told to go on from where they quit. He does not *know* where they quit. He has not worked according to that plan, and he should be heard *through* in his own plan. He should have credit from his teacher for all that is correct. The truth is, children are almost questioned and instructed to death. Keep still and give them a chance.

We do not wish to be understood to say that a teacher should never talk. There is a time to talk, but the teacher should be sure that the time has come, and that he has something to say that will benefit the pupil. We are more likely to talk too much than to talk too little. Do not hurry pupils. Let them think. Talk enough to give them something to think about, and give them time to think; and let them say what they think without disturbing them.

SUPPLEMENTARY READING.

SUPPLEMENTARY reading matter is used now in almost all schools. In some, it is purchased and owned by the teacher, who regards it as a part of his equipment for his business. In others it is furnished by the board. No matter who furnishes it, the teacher is the one who is to see that it is used in the school room to the best advantage. It may be well then, for the teacher to ask himself why he is having supplementary reading in his school.

He should not look for the answer to this question in a work on pedagogy, or in some school journal. He should not expect his superintendent to answer it for him. He should find the answer in the needs of his own school, as seen by him with the aid of the purposes of education. These purposes of education, of course, may come from his study of pedagogical science. But every teacher should answer this question intelligently for himself, for it is so easy to fall into the habit of doing a thing

school, and elsewhere, just because it is the fashion. There *are* teachers, however, who refuse to do things, just because they *are* fashionable. It is as bad as the other. A teacher should be rational—should know what he is doing what he is.

It seems to us that any of the following purposes are valid ones: (1) The purpose might be to furnish additional information to the history or geography class. (2) It might be given for the purpose of creating a habit for good reading. (3) It might be given to test the pupil's power of thought from reading.

The work of the teacher for any given lesson must be prepared and decided in the light of whatever valid purpose he may select for his particular school or for any particular lesson in that school.

Let us suppose that his purpose to-day is to give additional geographical information to his geography class. He has only one book that contains that information, so it must be read aloud to the school. He calls on his poorest pupil to read. He happens to be a *very* poor reader. He "stumbles" his words, miscalls many, hesitates, places the emphasis where it gives the wrong meaning or entirely destroys the meaning. The pupils who are supposed to listen and get this needed information, become restless, "figety,"—some drum on the desks, some play with pen and pen-holders, some make and blow "whirl a-gigs," some gaze out the window and wish "school was out."

Whose fault is it? The poor reader's? No, not primarily. He is having a hard time of it. It is the teacher who is blamable. He has acted irrationally in choosing his poorest reader. The pupils are not yet good listeners. They can not catch detached words and phrases said in a senseless way fast enough to translate them into meaning. He should have chosen his *best* reader to read to the school. If *he* fails to get them pay attention and understand, the teacher himself should do the reading. He may fail too.

The reading should be followed by questions that will show whether the pupils are getting the information desired. If they are not getting it, the teacher may feel tempted to scold a little and command them to pay attention next time, especially if *he* did the reading. This we all know is the poorest way in the world to get the attention of boys and girls. The teacher sometimes gets it this way, though, and reads again. The result is not better even though the reading is not. But the result is not what it could have been, had he raised some question on what was read, and

found that they could not agree upon the answer, and *then* read for the purpose of having them determine from the reading what the answer must be. This would have produced better attention and from a better motive too.

It may be that the reading is bad—does not express the thoughts intended, even though the teacher did it himself. It is the business of the teacher to ascertain what the trouble is and correct it. It is a waste of time to have supplementary reading when it does not not supplement anything. If the readers are all so poor that they can not read to the class so that the pupils can understand, it is the business of the teacher to teach them how to read to express thought instead of to make a noise. It may be that the matter is too difficult for the pupils to understand; that many of the words in the selection are not in the pupils' vocabulary. Then it should be dropped, or else explained. It is the business of the teacher to see to this. If it is only the words that give trouble, it is a good plan to teach them as the pupils need to extend their acquaintance with words.

"But," says one, "the pupil selected to read is one who does fairly well in his reader, but when handed a book to read something he has not studied he fails." Then let him study the part he is to read before asking him to read it. Is not this just what every teacher would wish to do, if he were expected to read a selection before his equals? "We wish to train our pupils to read at sight." We reply that the purpose of *this* lesson was to give information. If the purpose were to train the pupils in sight reading the procedure would be different. Every teacher should be able to read well at sight, but would not wish to read before an audience when they were listening for information. If the purpose were to teach how to read at sight and the audience could not understand it, he would feel more at ease if called on to read before the class. So, then, we claim that when the pupil reads to give information and is not able to do so at sight, he should be allowed a time for preparation.

To make the reading exercise a success when the purpose is to give information, the teacher must select matter that is within the grasp of the school; must see that it is properly presented by the reader; and must lead the pupils to tell what they learned from the reading.

The second and third purposes named are not discussed in this paper. They may be taken up at some future time if it seems desirable.

GENERAL INFORMATION.

Over five hundred new flouring mills have been started in the South-states within the last four years.

The tax upon tobacco in the United States is sufficient to pay the interest on the public debt of \$1,052,000,000.

Butter is now manufactured from the milk of the cocoanut and is said to be much better than oleomargarine or poor butter.

The Congo Free State has empowered the Brussels Anti-Slavery Society to send an expedition to Africa to aid in suppressing the slave trade.

A vast deposit of iron ore of excellent quality has been discovered in Minnesota. The outcrop is from 50 to 200 feet wide, 15 miles long, and of unknown depth.

One week last month San Francisco sent to Great Britain 319,000 bushels of wheat. Have class tell how many bushels. Where was this wheat probably raised? About how many acres do you suppose it took to produce it?

General Sherman says he doesn't propose to have any nonsense about the Washington Monument. He has bought it himself and paid a thousand dollars for it. He says that the minute he is buried it will be erected and that will end the matter.

Last December a law was promulgated at Constantinople absolutely forbidding the slave trade throughout the whole Ottoman Empire. One year's imprisonment is the punishment fixed for the first attempt to bring slaves, and the slaves are to become free. Two years' imprisonment is to be given those who receive or buy slaves smuggled into the Empire.

The largest gun in existence is at Constadt. It weighs 235 tons. Its length is 40 feet long, and its caliber 13¾ inches. It can be fired twice a minute, but it costs more than a thousand dollars a shot. It has a range of 11 miles. Why should such guns be made? Do you think that the prospect that governments have such guns will cause, or prevent war?

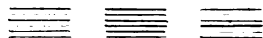
It is stated that a company with a capital of \$500,000 has been formed for the purpose of constructing a pipe-line from some point in the State of New York to the City of New York, for the transportation of milk. It is said that it will not take over an hour to send it a distance of 100 miles. It is to be forwarded in cylindrical tin-cans surrounded and protected by water. What next?

1. In the first place the teacher will find that for *number work* the plain sticks are more suitable than the colored. The latter are invaluable in form-work and in group-work, but the very prominence which through color they give to form renders them confusing in number work and in many exercises the sharp separations established by color prove a real hindrance to progress.

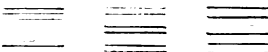
Thus, the child has received several (e. g., three) pairs of sticks, respectively red, yellow, and blue. He arranges the three pairs as follows: *a.* || || ||. (The different colors are here indicated by different thicknesses.) He, then, unites them: *b.* |||||. It will be seen at a glance that the very brilliance of the colors emphasizes the pairs so prominently that to the child the *six* can not appear. The child subsequently divides into two groups, thus: *c.* ||| |||. Still the pairs are so bright that even the two yellow sticks, separated by an intervening distance are by the color more closely united in the child's mind, than the two (red or blue) and one (yellow) in the respective groups.

The difficulties are wholly obviated by the use of plain sticks (or sticks of the same color). The above exercises then read easily as, (a) three twos, (b) one six, (c) two threes: *a.* || || ||; *b.* |||||; *c.* ||| |||.


2. The sticks are well adapted for analytic exercises in division and subtraction. The child has received a number of sticks (18) which he arranges in sixes, thus:—

d. 

By the analysis of division into equal groups these readily assume the following arrangement (two threes, three twos, six ones):

e. 

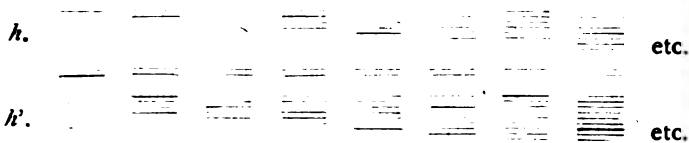
Again, the child has received a number of sticks which he arranges in sixes, thus:

f. 

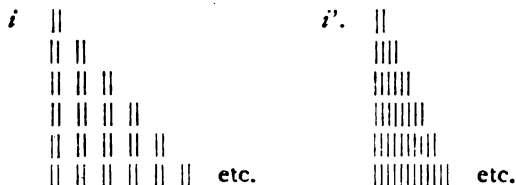
By the analysis of subtraction these are easily arranged as follows, according to the formula, $6 - 1 = 5$, etc.:

g. 

3. Similarly, for the preparation of tables, the sticks furnish suitable material. Thus, for addition for the formula, $1 + 2 = 3$; $2 + 2 = 4$, etc., the work assumes successively the forms *h* and *h'*. In the first these the problem is stated; in the second it is solved.



For multiplication, the preparation of the table of twos will yield the forms i and i' . In the first of these, again the problem is stated; in the second it is solved.



4. Lastly, the sticks furnish most flexible material in connecting number with form-work. The child receives a handful of sticks, and is given the problem to make as many forms as he can invent, using for each form six sticks. The results are fascinating and instructive in the extreme. Hour-glasses, tents, fans, pots and kettles, houses, wind-mills, spades, flags, churches, trees, boats, stars, etc., etc., appear in profusion. Each form has only six sticks, but in the most varied arrangements.

For further hints and more exhaustive directions I must again refer the reader to "Primary Methods", published by A. S. Barnes & Co., and to "Primary Helps", published by C. W. Bardeen.

"Primary Methods" will also furnish ample directions for the use of blocks and fraction-strips in more advanced work.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

PRESENTATION OF FIRST PHASE OF READING.

THE presentation of any subject is concerned directly with actual class work. The pre-supposition is, that the teacher has already traced the development of the work from truths of mind and the involved branch of knowledge; more specifically, has determined, (1) the basis in the child's mind for the work presented, (2) the purpose in presenting it, and (3) the subject-matter itself.

The immediate considerations in presentation are, (1) steps, (2) devices.

The steps are those activities of the child's mind which he puts forth in gaining all that the subject or lesson is fitted to give him; or, they are his distinct acts in learning.

The devices are the media of communication between the mind of the teacher and the mind of the child, for the work suggested by the one and actualized by the other. They are the chosen stimuli by which the teacher may direct the child's mental activities. The device is, therefore, only the embodiment of the idea for whose sake it exists. It may be any expression of meaning, as a question, an action, or a group of objects. Obviously, the first requisite of device is that it express the given meaning clearly and completely.

The first phase of reading is that in which the child associates the meaning of the word with its visible form as a whole. (For the pre-suppositions in mind and subject-matter which determine its presentation, reference is made to an article on "Stages in Learning to Read," in the Journal for October, 1888.)

The steps in mastering this phase, to be provided for by the teacher, are: (1) to call into consciousness the selected idea; (2) to image the form of the corresponding word; (3) to strongly associate the idea and the form of the word, with the stress of the mind's energy upon the idea. These three steps, though logically distinct, are closely related by the very nature of the act of association. So that in considering the presentation of any one, necessary reference is made to the other.

The devices for the first step are determined only by a clear and constant consideration of its aim, which is: to have the child's whole mental energy thrown upon a certain idea. For example, the given word is *tree*; the child is clearly and forcibly to act the idea which we call "tree." The device is the means by which the teacher stimulates his mind to that particular action. To lose sight for a moment of the fact that the child's mind must deal primarily with an idea, is fatal to a realization of the general aim to associate meaning and form.

Here hinges the difficulty. The device selected may call the attention of the child to the idea, but much more prominently to the device itself. Thus when the picture of a dog is presented to him, it is quite possible for the mental energy to be strongly engaged upon the picture as such, while the meaning, dog, receives only the residue of attention.

This point is clearly seen in the attempt to employ the oral word as a device. The sound is the impressive thing, and the meaning is but dimly in consciousness. Each repetition in fixing the association with the form,

ly leaves the sound more meaningless, so that at the sight of the form, the child thinks the sound of the oral word. Were the aim to associate the spoken word with the form, this plan would be preeminently successful. The oral word is discarded as a device in this step, not because it stands for anything other than the meaning, but because of the presence of a prominent distracting element.

The second requisite of device in the step is, that it shall give the minimum of opportunity for divided mental energy.

It is a view usually held, that the mere presentation of the object, or, in general, the employment of objective illustration, is the ideal method of leading the child to act the desired idea. Certainly, the first and second requisites are fulfilled, in that the idea is perfectly expressed, and so as to invite undivided mental energy. But in another view, the use of objective illustration may or may not be effective. A word, spoken or written, stands for a *general* idea. For example, "umbrella" represents the concept which includes every particular object in which the essential characteristics of umbrella are found. Each individual umbrella is so only because it possesses the marks of the universal umbrella. But any particular umbrella presents many marks other than the essentials. The child is able to use the general idea, umbrella; he gained it by experience with many articles, differing as to unessentials, but all possessing the necessary elements of the umbrella. He has not rejected the essentials in forming his general idea, but has included them; and he realizes that the umbrella may be black, white, or green; of silk, wool, or cotton; small, medium-sized, or large. "Umbrella" means to him any possible umbrella. Thus the spoken word, umbrella, has this meaning to him, because he has associated the name with all the varying elements of the idea, umbrella, which his experience has encountered.

If the written word possess the same fullness of meaning, it must be the result of a similar process of associating directly with the written form, many types of the object, present or not to the senses. Therefore, if the word "apple" is to be taught, its content is not to be limited to "small green apple" by the consideration of a single specimen, to the neglect of the large red apple, the medium-sized yellow one, etc. Present to a child repeatedly the same small black cat and the printed form, cat, so that he associates the one with the other. Then present the form alone; but the small black animal is present in the child's mind also. It is bound to appear; and until the diminutive dusky apparition is exorcised, *cat* in the book or elsewhere means *small black cat*. This meaning of course substitutes for "cat" in the sentence, "There is a large white cat."

If after the lapse of time he is able to put any meaning into the sentence, it is in spite of the teaching, not because of it.

A similar result would be obtained by the constant representation of a certain selected illustration for the meaning of any word.

From the foregoing, the third requisite is that the device represent the *general* idea; and should therefore consist of many and varied particulars. In the large number of cases in which the presentation of the object to the senses is impracticable, the child is led to think of it by means of a method which may be called that of suggestive language. The teacher repeatedly uses the idea in talking to the pupils, the thought of the sentence suggesting the idea in every case. The oral word is not used except in a few cases to avoid confusion of terms. For example, the child may think "chicken" when the teacher is dealing with "hen,"—a difficulty obviated by the incidental use of the oral term. With this exception, the visible form is used instead of the spoken word.

The following illustration involves the three steps of, (1) acting meaning, (2) imaging form, (3) associating form and meaning. Having selected the word "cage", the teacher may proceed somewhat as follows (writing the word on the board in every case, not speaking it):

"Yesterday morning my bird got out between the wires of its cage, and I feared it would fly away. But I put the cage on the floor, opened the cage door, and after awhile the bird hopped into the cage. He has a pretty brass cage, but he likes to get out sometimes.

When the show was here, I saw the parade. I was not afraid of the lion, for he was in a large, strong cage. The giraff was so tall that he had been put into a very high cage. I could see the bear through the iron bars of his cage. The next cage was a round one, full of parrots. The next cage was a small, square one, and held a little monkey.

A boy caught a squirrel in the woods, brought it home and shut it up in a cage. The squirrel did not like to live in a cage, though it was a bright new one. So the boy opened the door of the cage, and let the squirrel go."

From the first sentence to the last, it is usually apparent that the child is thoroughly engaged in making the desired association of meaning and form. He needs no telling that the new form stands for "cage"; he has used it for that purpose already, as often as it occurred in the talk of the teacher. He is now quite able to "tell a story" himself about a cage, pointing to the word instead of speaking it. He soon does this skillfully, and thereby grows in clear and original thinking and its correct and adequate expression.

The presentation of objects and other objective illustration to the senses is much simpler in regard to the first step, as that is secured directly. As already developed, the main point is that the illustrations be so numerous and varied as to allow of generalization.

The appropriate device for the second step,—the imaging of the form of the word,—has already been implied as the rapid tracing of the given form under conditions which secure direct and strong association with its meaning.

The third step,—association,—is the immediate result of the first and second steps. That is to say, the meaning was in consciousness in connection with the form; and the form was imaged only for the purpose of representing the meaning. Since association is the end of the process, devices for the first and second steps are more or less directly devices for the third. Thus, the use of many particulars dealt with for the sake of enabling the child to put a *general* idea into the form, secures also the repetition, and variety of repetition, necessary to fix the association.

An additional point under the third step is, that the child in associating should pass from meaning to form, and from form to meaning; with the stress somewhat upon the form, since until he begins to write, he has more need for the meaning in the form than for the form to express his own meaning.

M. F.

THE NEW EDUCATION.

[NOTE.—At a recent quarterly meeting of the Conference of Educational Workers, Supt. Dutton, of New Haven, presented a paper on "The Effect of Recent Innovations upon the Course of Study." A large majority of those present agreed in their discussions that the so-called New Education had largely increased the efficiency of the schools, and was furnishing the pupils with a better preparation for active life.—*Christian Union*, March 6.]

"THE NEW EDUCATION" is a mystical phrase about which many are acquiring both in and out of school circles. It has almost as many meanings as there are voices that speak it. With most it means some vague and undeveloped system of object-teaching that is to become general as fast as the intelligence and skill of teachers advance to meet its requirements. With others it means a system of object teaching already fully developed in their own practice and not capable of much more growth. With all it means more or less of industrial training, more or less of modeling, making, painting, etc.

The writer will attempt to give the phrase a meaning at the same time very definite and very suggestive of expansion. The New Education means, for the most indefatigable truth-seekers among the teaching ranks,

a continual exercising of the child's faculties upon the objects of nature. It proceeds upon the assumption that "the child is a born naturalist." It gives him leaves to dissect and compare. (The timorous, who have an anxious thought fixed upon map-drawing, may see, if they will, the beginnings of map-drawing in the study of the leaf.) It leads him to talk and write about the leaves, to mold and paint and draw the leaves. It gives him flowers to investigate. It answers no questions that the child's own observing powers can answer for him, but answers all others freely and truly, whatever they may be; and the great truths of nature trickle into the child's mind and are assimilated by his mental constitution just as bread and milk are by his physical organism. They feed the moral nature with the intellectual, for there is nothing that can so stir and strengthen the moral sense as to observe the beauty and infallibility of nature's laws.

The New Education places whole plants before the child. The adaptation of parts to purposes, the conditions of healthy growth, even practice in farming, gardening, etc., may come to the pupil in the course of his school life. And all the while the arts of expression are receiving the highest possible cultivation. Speech and written composition progress "under the white heat of thought," there is little trouble with spelling, and the growing vocabulary includes all the terms that the most varied discussion can demand. Color and form are learned from the sources to which artists go. Even number, which, like color and form, is "but an element of thought," is taught incidentally. One leaf has so many more points than another. A flower of one kind has petals enough for so many of another. From a stem bearing so many thorns we can take off three so many times. If from a plant having seven blossoms we take three for study, four will remain, etc.

The New Education already opens up a doubt whether in primary teaching the subject of number need be separately treated (number includes size; one object is so many times as long, as broad, as thick, as another; every object is so many lines, inches, feet, miles, etc., in diameter). We can not study any visible object without applying the elements of form, color, and number. The New Education subjects animal organisms to the same experiential study. It also presents minerals. It incites observation of the weather, changes of season, etc.

I wish to answer in advance all anxious querists about dollars and cents. Our currency is a part of the great social organism. A smaller social organism exists in the class-room. In the study of that smaller social organism, which is a proper subject for the New Education to treat,

may be gathered all of social and political principles, all of mercantile form and practice. Here is a natural system that need not end with the kindergarten, but that may be made to do the child the same justice throughout the school course. It is *justice* that is called for. Every child that is born into this world has an indisputable right to have his natural needs satisfied. The education of the past has made many blind attempts at this work of satisfying childhood's needs, and here and there some great soul has pierced the darkness and let in a flood of light too dazzling for the unaccustomed eyes of his fellow-teachers. But eyes are stronger now, and love must grow with every ray of light let in. The more teachers realize how much the children of the past have been injured, the more they will yearn over the children of the present.

Not less in value than lessons in nature are lessons on common objects,—especially in the lower classes. The more children can be led to see in their toys, in their surroundings at home, in the ordinary things of life, the more their lives will be enriched and their powers for future enjoyment and usefulness enhanced.—ELLEN E. KENYON, in *The Coming School*.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw Normal School.]

"STUDY THE INDIVIDUAL PUPIL."

THE above oft-repeated topic should be accompanied by one of far greater value: "Study the Universal Pupil." While school work must be addressed to the individual, it is the universal in the individual that determines the procedure. Teachers fail because they do not know what the universal mind processes in a given portion of knowledge are, and not from ignorance of each pupil's idiosyncrasy. Given a basis in knowledge and a grade of mental development and there is a royal road to the thought which the teacher desires to awaken. For instance, the pupil in learning the infinitive must, (1) observe the words; (2) create the image back of the words; (3) compare the image with that expressed by verbs and nouns; (4) generalize the likeness of what is expressed by the words observed; (5) and define the infinitive.

This process is the great truth the teacher needs to know about the mind in this case, rather than the idiosyncrasy of some pupil in the class; for this pupil, too, must reach the thought in the same way. The sci-

ence and the art of instruction must be based on the likenesses, not the differences of individuals. Knowledge must be fixed in mind by the universal laws of memory, whatever the peculiarities of the individuals in the class instructed. All generalizations are made in the same way by every member of the class, in spite of the individual traits of character represented. Let us therefore study, not the individual pupil less, but the universal pupil more.

THE TEACHER'S SOURCE OF INTEREST.

INTEREST in teaching has a common source with that of all doing—the *realization of ideals*.

Everything realized by man exists first in idea. The Clermont must have been constructed in imagination before she could have steamed up the Hudson. The condition of objective reality is subjective idea. Every material fact first existed in idea, and became real because of the inner prompting to realization. "There seems to be a necessity in spirit to manifest itself in material form; and day and night, river and storm, beast and bird, acid and alkali pre-exist in necessary Ideas in the mind of God and are what they are by virtue of preceding states in the world of spirit."

Ideas, by their very nature, press for outer reality. Imprinted on the acorn is the idea oak. By its nature it presses for outer form. As in the acorn so in the mind of man, ideas urge to realization. They take possession of the mind of man and give no peace until the ideas are given objective reality. The idea of free education for the poor took Horace Mann from a brilliant law practice and a senator's chair to labor for its realization. Every idea presses to the deed—presses to embody itself in the mower, the engine, the mill; to take form in the poem, the creed, the political platform.

Man's happiness always comes in the consciousness of realizing an idea. The boy as he carves his boat of bark watches his idea take form, and is filled with childish glee. The man who invents a watch labors with intense pleasure as the idea takes form under his skilled touch, and the finished instrument delights him because it is the outer manifestation of his own inner life. But the man who feeds the brass into the machine that cuts each wheel has no such interest. (He is a slave working out the ideal of another.) He toils not in response to the urgency of an inner impulse, but because of the external force that compels him. Such a life is a continual round of drudgery. But imagine the interest of the

architect as he sees his idea taking form in the cathedral; the pleasure of the sculptor as he chisels the angel out of the cold marble; the delight of the painter as he reproduces the entrancing visions of his imagination, the joy of the musician as he realizes the divine melodies in his soul, the pleasure of the poet as he embodies in visible form,

"The winged shafts of truth."

The true teacher is inspired with an idea, and in the consciousness of realization finds his true interest in teaching. The teacher without an ideal puts time in his labor; the real teacher, life. The one is a drudge, the other in bondage to external compulsion. The other is the master, the freeman who labors under the inner impulse of an idea, and under that impulse is happy. "It is obedience to ideas, the execution of cherished purposes, that confers pleasure. High enjoyment is ever incidental to high action."

All ideals do not stimulate life to the same degree of interest. The street ditcher works to an ideal, yet it is not so great as that of the man who invents a twine-binder. As the two ideals vary in complexity so the interest in their relation varies in intensity. To hold before the imagination for months such an intricate ideal as the Brooklyn bridge with its massive pillars and its stretch of cables, and by intense toil and over almost insurmountable obstacles to realize portion after portion until the entire magnificent structure stands forth an accomplished whole, an objectified self, gives the most intense pleasure. As we rise from the ditch to the bridge the pleasure increases in proportion as the idea requires more planned, intricate, and far-reaching effort to realization.

But these ideals are accomplished in the material world, in lifeless matter. The teacher's ideal is a living soul infinite in its possibilities. He struggles year after year with such a vision of noble character floating before the imagination, to watch traits of character take control of young men until it becomes rational, living to the highest ideal of spiritual worth, and thus the teacher pleasure, interest, enthusiasm. There is a low grade of interest in training a pupil to spell correctly difficult words. There is pleasure in labor that changes an awkward scrawl into a smooth flowing hand; that produces a skilled accountant; a good reader; a shrewd business man; a social gentleman. But the teacher to enjoy full interest must strive to realize the highest ideal known to man—the nobility of human character.

But the realization of the teacher's ideal in the life of another not only is the greatest source of interest because it is the highest ideal known to man, but because of another fact—*the sympathy of life with life.*

All life is one. Each man feels that the life of every other is a part of the same general life that fills out his own. This feeling of sympathy is the deepest sentiment of the heart. The parent, looking into the soul of the child and feeling there a life which is a part of his own, strives with it in order that all he sees in the young life may be realized. This feeling of love and sympathy on the part of parent, this sympathetic yearning for the reality of the ideal in the child, is the true basis of our public school system.

The teacher, like the parent, feels that the life before him is a part of his own. He recognizes in the pupil a reproduction of the life through which he has passed. He looks into the eager, yearning soul of the child and feels his own nature drawn out in sympathy. Every pulse-beat of mental effort on the part of the pupil causes a sympathetic throb in the teacher's bosom. The teacher feels the other life, and warmly takes it to his own to nourish it. In the high-school course the pupil is at the age of personal responsibility, the age in which he must voluntarily take control of his own life and pitch it to the highest point of spiritual worth or sink it to the low plain of physical happiness. He who has devoted his life of toil to secure a successful choice at this epoch in the pupil's life can but be intensely conscious of every struggle. And when the choice is made and the pupil starts on life's upward journey the teacher is filled with unspeakable satisfaction.

Pleasure is man's reward in working out ideals. The higher and more exalted the ideal the more intense the interest in its realization. The teacher strives to realize ideal character—the highest ideal known to man. His interest is intensified by sympathy with struggling life. *Hence the source of interest in teaching is the sympathetic striving of the life of the teacher with that of the pupil in the effort to realize the highest ideal possible to the life of man.*

C. W. G.

COMPARISON AND CONTRAST IN HISTORY.

INTIMATELY connected with whole and part are the relations of *comparison* and *contrast*. So close is this relation that intelligent and efficient integration and separation depend on a conscious search for likenesses and differences in subject-matter. Unless resemblance is seen to make the parts into a whole and diversity the whole into parts, the organizing value of whole and part is very small indeed. The teacher must see the common idea that joins events into series and a number of series into periods, while the differences in the common idea must be recognized separating periods into series and these again into events. If we look

from the product to the process by which the product was wrought out, the value of comparison and contrast is demonstrated in another way. The exercise of the analytic judgment—the process by which periods of history may be resolved into parts—is based on this discovery of differences. The more fundamental the difference, the higher is the act of analysis. The action of the synthetic judgment—the process by which events are built into series and series are built into periods and periods into the great whole—is based on the perception of likenesses. The more essential the resemblance, the more powerful and perfect the exercise of this form of judgment.

Besides forming the basis for an intelligent application of the relations of whole and part and for the conscious use of the analytic and synthetic judgment, comparison and contrast enable one to distinguish between the permanent and enduring forces in history and those that are transient and of little value.

They reveal the same idea manifesting itself in various events and under many disguises. This is no easy task for the student; the great wilderness of events that belong to history dazzles the imagination and confuses the memory. The sure guide through this maze, and out into the clear light of order, law, and system, is the conscious use of comparison and contrast. By means of this pair of relations, threads of thought are projected through events that are so dissimilar in time, plan, purpose, and appearance that, at first, no kinship seems possible. Without a patient search for resemblances in the midst of differences, the student cannot see that the struggle in the Continental Congress over the Articles of Confederation and the final failure of these Articles; the opposition to the Constitution in the Philadelphia Convention and in the ratifying conventions of the thirteen States; the Kentucky and Virginia Resolutions; the Hartford Convention; the nullification of South Carolina, and the secession of the South involved the *same* idea—the Sovereignty of the State. The perception of this common idea in the midst of so much diversity is necessary to compactly organize these events, while the presence of differences in the idea of State Sovereignty itself and in the circumstances under which it was manifested enable the mind to mark the growth of this principle. As the student forces this search for ideas that endure and principles that are permanent, he will be struck with the thought that the more fundamental the resemblances discovered, the fewer distinctly different ideas are found to exist, and that the limitless field of history is the battle ground of only a few great ideas.

Comparison and contrast are not only powerful instruments of thought

as indicated above, but are, also, an efficient means to self-direction in study. Nothing frees the student sooner from the monotony and drudgery of the history text than the conscious search for likenesses and differences in events and ideas that are not formally stated in the text. Such work has in it the stimulus of discovery. The student feels that he is getting more than is formally expressed and that it is obtained without the direct aid of the teacher. The consciousness of his own strength comes to him, and he becomes a seeker after truth. W. H. M.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

IN ASKING to have the address of your Journal changed, please do not forget to give the old as well as the new address.

IN MICHIGAN the law leaves it discretionary with each school corporation as to whether it will furnish the children "free text-books." East Saginaw adopted the free book plan some years ago, but Detroit pursued the old way until February 27, when it voted to try the *free* books.

WHEN a man goes before a grand jury to give evidence, he is sworn to tell the truth, the *whole* truth, and nothing but the truth. Now suppose such a person tells only a *part* of the truth, and thus deceived, the jury secures an unjust indictment, is not that person morally guilty of perjury?

Will the Logansport School Board please answer?

AFTER a winter so remarkable on all coasts for disastrous weather the thoughtful mind naturally turns to a consideration of the ways and means employed by our Government to assist distressed vessels and shipwrecked mariners. In the *New England Magazine* for April the editors have provided a rare treat for their readers by giving them a strikingly illustrated article on the "Life-Saving Service."

THE WORLD'S FAIR will *probably* be held at Chicago, and will CERTAINLY be held in 1893 instead of 1892. When it is held it will be a "big thing," and the educational exhibit should exceed any heretofore made. The Journal nominates Dr. W. N. Hailman, of La Porte, Ind., as Director-General of the Educational Exhibit. He has had large experience in making and managing not only private but national exhibits. He speaks and writes most of the foreign languages that would be represented in such exposition. The fact that he is known through his writings and in person in England, France, Germany, and Switzerland, and would be able to correspond in the language used in all these countries, gives him a superior fitness for the place suggested.

FAIR WARNING.—The end of the school year is approaching, and it is only simple justice that school boards who expect to dispense with the services of a superintendent should let him know at once, that he may have time to look out for another place before it is too late. Teachers are entitled to the same consideration.

DO NOT tongue-lash a whole school because of the disobedience of a few pupils. Sensitive children are greatly annoyed and frequently greatly wronged by wholesale scolding. Never scold, but when it is necessary to reprove a child, do it personally and, if possible, privately; do it firmly and in a courteous manner. Never use language or show a temper that you would be ashamed to employ in the presence of the child's parents.

PROGRAM vs. PROGRAM.—Why will teachers and superintendents who ought to know better persist in playing the pedant and pronouncing "program" as though it were spelled *pro-grum*? In order to place the accent on the first syllable it is not at all necessary to change the sound of the vowel in the last syllable. The letter 'a' has the same sound in program as it has in diaphragm and epigram, and should be as distinctly heard in pronunciation.

ARBOR DAY.—The Journal suggests the *third* Friday in April as "Arbor Day," or the day on which to plant trees on or about the school premises. If the teachers will "take the matter in hand," they can secure the planting of thousands of trees, that for generations to come will beautify the premises and be a blessing to the world. The native forest trees are the best, and can usually be had for the digging. Interest the trustee, the director, the big boys and girls and their parents, and there will be no trouble. The only thing needed is a *live* teacher with a purpose.

SANITARY CONDITION OF SCHOOL HOUSES.—State Superintendent LaFollette, some time ago, sent out circulars for information concerning the sanitary condition of school houses and grounds, and the reports that have been received are rather startling. The want of proper supervision over the very important matter of healthy premises is surprising. So far as the reports have come in there are 71 per cent. of the houses that have no other ventilation save through the cracks in the floors and through broken windows; 18 per cent. are on low ground with no provision for drainage, while in one-third of the houses the blackboards are placed between windows, thus endangering children's eyesight while working at the boards. A radical change in the proper selection of grounds and in the proper ventilation and arrangement of buildings throughout the state should be made. And yet Indiana is believed to be no worse off in these matters than are other states.

WABASH COLLEGE GETS \$50,000 MORE.

Simon Yandes, a wealthy gentleman of Indianapolis, has determined to devote part of his wealth to educational purposes, and has wisely decided to give his money at once and see that it is applied as he directs, and not leave others to

carry out his will, which might possibly not be carried out. Mr. Yandes in 1888 gave to Wabash College \$10,000 to be applied to the endowment fund. Last October he gave \$40,000 to endow the chair of English Literature. A few weeks ago he gave \$20,000 more to the endowment fund, and \$30,000 with which to erect a new library building—\$100,000 in all.

This is a noble gift, and not only the friends of the college but the friends of education and the friends of liberal christian giving generally, are under many obligations to Mr. Yandes for his gift and for his example.

Wabash is in special luck lately, having received in gifts and bequests since 1888, \$180,000, which makes it one of the best equipped colleges in the West.

THE STATE SUPERINTENDENCY.

The Journal is, as it has always been, interested in having each of the political parties nominate for Superintendent of Public Instruction, a strong man. Indiana is always so close, politically, that no one can be certain, in advance, which party will be victorious, and if a good man is nominated on each ticket then the school interests are safe, whatever the result of the election. No other State officer, possibly excepting the Governor, is of as much importance to the people as is the State Superintendent. The man who directs the educational interests of a great State should be a man of ability and of influence. He should be a man of educational thought. He should be a man who will not have to depend on his office to give him a respectable standing among educational men. He should be a man who can attend the National Educational Association or the National Superintendents' Convention, and measure up with the average talent found at such places, so that Indiana may be fairly represented. Let each party put forward its best man and there is nothing to fear. Every teacher in the State should work to this end.

THE BLAIR EDUCATIONAL BILL DEFEATED.

The bill in general terms provided for the expenditure of \$77,000,000 in the next ten years, among the States on the basis of illiteracy. Its special object was to aid the Southern States in the education of the colored people.

Senator Blair has made this bill a specialty for many years. It was first passed by the Senate March 4, 1886, by a vote of 35 to 12. It passed the Senate again February 15, 1888, by a vote of 39 to 29. But both times its enemies prevented its coming to a vote in the House. At the opening of the present Congress Senator Blair was ready with his bill again, and his skill and ability crowded it to the front, but in so doing lost it friends. After a protracted debate it failed to pass by a vote of 31 yeas to 37 nays.

It will be seen that the bill steadily lost strength in the Senate. It is now thought that the enterprise is *dead*, but late dispatches from Washington say that Senator Blair is again on his feet, and trying to reach the same end by a different plan.

The chief argument against the bill has been that the constitution did not recognize the right of Congress to appropriate money for educational purposes—the matter of education is left to the States.

NATIONAL EDUCATIONAL ASSOCIATION.

The National Educational Association, as heretofore announced, will meet St. Paul, Minn., July 5 to 11—the Council meeting on the 5th and the Association proper on the 8th. A most excellent program has been prepared, not only for the main association but also for the various sections. But aside from the association itself, with all its inducements in the way of interesting topics, distinguished educators from all parts of the country, St. Paul and its surroundings will prove strong incentives for making the trip. The location is far north, in the very centre of the “summer resort” region, and teachers who expect to make a “vacation trip” can not fail to find here, or hereabouts, ample attractions.

Excursions have been planned, at low rates, from St. Paul to every point of interest, including the National Park and the Pacific coast. Indiana ought to send a large delegation and doubtless will. These excursions more than repay their cost in many ways.

All railroads will sell tickets at one fare for the round trip, with \$2.00 added which pays your initiation fee to the Association. Indiana teachers can go over by Chicago, St. Louis, or Peoria, at the same price, and make good connections.

Reduced hotel rates have been secured, and everything possible is being done to make the next meeting the largest and best yet held.

The editor of the Journal is the elected Director for Indiana, and W. W. Parsons, Terre Haute, President of the Normal Section; Mrs. Eudora Hailman, LaPorte, Pres. of the Kindergarten Section; and Jesse H. Brown, Indianapolis, Pres. of the Art Section, are also Directors by virtue of their offices. Any and all of these stand ready to answer questions and give information in regard to the Association. And in addition to the above named, in order that all parts of the state may be represented, the following persons have consented to help constitute this “Bureau of Information”: A. H. Graham, Columbus; B. F. Wissinger, Cambridge City; Dr. Jno. S. Irwin, Ft. Wayne; W. N. Hailman, LaPorte; T. Merrill, LaFayette.

A letter of inquiry to any of the above will bring you the desired information on any point connected with the “great excursion.”

THE SCHOOL-BOOK LAW VALID.

The Supreme Court has rendered its decision on the new school-book law and declares it both constitutional and compulsory. It was argued by those opposed to the law that it created a monopoly and

was therefore unconstitutional, and that school officers could not be compelled to order and sell the books. The friends of the law maintained that it was constitutional and mandatory. Both sides of the case were ably argued before the court, and the decision was as stated above.

Four of the five judges concurred in the opinion, which was written by Judge Elliott. The decision was very lengthy—too lengthy to print in the Journal—but the following extracts will indicate clearly the line of argument and the general conclusion:

Judge Cooley has examined the question with care and discussed it with ability, and he declares that the legislature has plenary power over the subject of the public schools. * * *

As the power over schools is a legislative one it is not exhausted by exercise. The legislature having tried one plan is not precluded from trying another. It has a choice of methods, and may change its plans as often as it deems necessary or expedient, and for mistakes or abuses it is answerable to the people, but not to the courts. It is clear, therefore, that even if it were true that the legislature had uniformly intrusted the management of school affairs to local organizations, it would not authorize the conclusion that it might not change its system. To deny the power to change is to affirm that progress is impossible and that we must move forever "in the dim footsteps of antiquity." * * *

All the public schools have been established under legislative enactment and all rules and regulations have been made pursuant to statutory authority. Every school that has been established owes its existence to legislation, and every school officer owes his authority to the statute.

Having this authority, the legislature may not only prescribe regulations for using books, but it may, also, declare how the books shall be obtained and distributed. If it may do this, then, it may provide that they shall be obtained through the medium of a contract awarded to the best or lowest bidder, since if it be true, as it unquestionably is, that the power is legislative, it must also be true that the legislature has an unrestricted discretion and an unfettered choice of methods. * * *

If the power over the school system is legislative and exclusive, then the legislature has authority to impose upon all officers whose tenure is legislative such duties respecting school affairs as it deems proper. All such officers take their offices *cum onere*, and must do what the legislature commands or else resign. * * *

We conclude our discussion of this phase of the subject by affirming that the statute can not be considered as creating a monopoly because it does require that a certain class of books shall be used, and, in doing this, does favor some publishers to the exclusion of others.

We accept as correct the assumption of appellant's counsel that the statute does require the people of the State to buy the particular books designated by the proper officer in obedience to the command of the law, and that, so far as concerns the officers of the State, they must be bought from the firm to which the State Board of Education awards the contract. We agree fully with appellant's counsel upon this point, for we think that everywhere throughout the statute is manifested the intention to create a uniform system, and to make a body of rules which all school officers are bound to obey. * * *

Two things are very clear: one, that the legislature meant to provide an exclusive privilege in order to secure books at the best prices; the other, that the legislature meant to prevent the possibility of any break in the uniformity of the system framed by the statute.

We can find neither reason nor authority that suggests a doubt as to the power of the legislature to require a designated series of books to be used

the schools, and to require that the books selected shall be obtained from the person to whom the contract for supplying them may be awarded. * * *

Either the State has power to regulate and control the schools it owns or it has not. If the right of regulation and control exists, then the fact that the exercise of the right does exclude some publishers is an irreparable and unavoidable condition of the exercise of the right. Without it the right is annihilated. * * *

From beginning to end there is no hint or suggestion that some of the trustees may, and some may not, obey the law, and procure, or decline to procure, the books under the contract made by the State board. There is not the remotest suggestion from which it can be inferred that the system constructed shall be treated otherwise than as a unit. Nor is there a word from which it can be inferred that the legislature intended that inferior school officers might exercise discretionary power and thus break and deform the uniformity and symmetry of the system.

All we know of the history of the enactment, and all we can discover as to the object of the statute, and all we have learned of the evil sought to be remedied, combine with the words of the statute (words clear in themselves, but clearer still in the light shed upon them by extrinsic facts which it is our duty to know.) In support of the conclusion that the statute creates a uniform system, it requires that all books be procured under the contract, and that school trustees may not exercise discretionary powers, but shall perform the duty enjoined upon them by procuring and distributing the books selected by the State Board of Education, as the law commands.

Judge Berkshire submitted a dissenting opinion in which he said:

In my opinion the whole act is in violation of the Constitution of the United States, and of Section 23, Article I, of the Constitution of the State of Indiana, and therefore void. * * *

The books to be furnished, therefore, are not sold to the State, nor are they sold to the patrons of the schools by virtue of the arrangement which the State and the contractor makes. It requires another transaction, complete and perfect in itself, between the contractor and the patrons of the schools to divest the ownership of the contractor in the book which he is to furnish, and to invest the ownership thereof in the patrons of the school. It is just the same character of transaction as though there had been an arrangement or contract between the State and the contractor. It seems to me that the most that can be said or proved for the contractor is that the contract or arrangement extends to him a privilege, to the exclusion of other persons, of supplying the public schools with text-books. * * *

Blackstone's definition of a monopoly is as follows: "A monopoly is an institution or allowance from the sovereign power of the State, by grant, commission or otherwise, to any person or corporation for the sole buying, selling, making or using of anything whereby any person or persons, bodies politic or corporate are sought to be restrained of any liberty they had before, or hindered in their lawful trade." The exclusive privileges granted to the Indiana School-Book Company under the legislative act in question fall exactly under Blackstone's definition and clearly and unmistakably within the inhibition of the State constitution. * * *

We inquire who is damaged by any default of the company, and what the measure of damages? The State is not damaged, for it purchased no books from the company, and especially stipulated against liability to the company. The patrons of school are not damaged, for the school-book company has no contract with them, and they are under no obligations to purchase the books. And if it were possible to find one to whom the book company is bound to respond in case of its default in the performance of its contract, I imagine that

it would be a little troublesome to ascertain the measure of damages. Here no obligation is entered into to perform any particular act or duty for the benefit of any third person.

Judge Olds agreed with the majority decision in the conclusion reached, but did not agree with Judge Elliott's reasoning in some of its phases. He said: "As to whether the law is salutary or will prove beneficial to the school interests are matters with which the courts have nothing to do."

Of course the majority opinion of the court is the law, and both its constitutionality and mandatory power are *settled*, and individual opinions stand for nothing.

As Judge Olds says, this decision has nothing whatever to do with the *merits* of the law; but now that there is no further question as to what the law really means it will be thoroughly tested, and if upon trial it proves to be what the people want they will retain it, and if it proves unsatisfactory they will amend or repeal it.

When the time comes that the law can be discussed and calmly considered, from an *educational* stand-point, the Journal will have something to say as to its merits. Up to date it has been impossible for any one to criticise the law, in any of its phases, without being charged with "partisanship" by a certain class of *self-constituted* champions of "our glorious school system." Discussion and criticism are the means by which all our laws are perfected. The Journal's record for more than thirty-five years is sufficient guarantee that it will continue to advocate what proves to be in the interest of the schools, without regard to party.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN FEBRUARY.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100 and 1 will be deducted for each word incorrectly written.

HISTORY.—1. What views did the settlers of Jamestown hold in regard to the following subjects?

1. Slavery.
 2. Church Allegiance.
 3. Rights of the Indian to the Land.
 4. Education (general).
2. Compare and contrast with the above the views of the settlers of Pennsylvania on the same questions.
3. Show whether any of these views or their consequences remain embodied in any of the institutions, customs or laws of the two commonwealths.

4. What question or questions did each war in our history seemingly settle?
5. Name the five greatest statesmen that this country has produced, and give one important service of each.
6. Name three literary productions that have had marked influence in shaping the history of this country. Explain each case.
7. What argument could you make to justify the Louisiana purchase?
8. What could a Frenchman find in this country as evidence of the occupation of the Mississippi Valley at some time by his nation?
9. Trace the successive development of any series of five inventions, the succeeding ones made possible or desirable by any one or more of the preceding ones.
10. Give illustrations of different methods of dealing with the Indians in at least three colonies, with principal results in each case. (Any seven.)

- PHYSIOLOGY.**—1. What are the uses of bones? Give an example of each.
2. Name the fluids of the body that will aid in digestion, and state by what organ each is secreted.
 3. Where and how is the heat of the body generated? How is it regulated?
 4. What important changes take place in the blood in the capillaries? How produced?
 5. Describe the iris, cornea, and the crystalline lens.
 6. Describe the liver and state its functions.
 7. Give some directions for stopping the bleeding of a cut or other wound.
- (Answer any six.)

- SCIENCE OF EDUCATION.**—[Five of these questions are based on the Reading Circle work for the current year. The applicant is to answer any five.]
1. What is the catechetical method of conducting a recitation? What objects may it have?
 2. Explain the lecture system of instruction. To what class of students does it seem best adapted?
 3. What is the character of educative reasoning?
 4. From what sources are the general truths used in deduction derived?
 5. What subjects in the common school course admit most easily of deductive study?
 6. Explain what is meant by positive and negative education of the body.
 7. What is meant by the principle of physical hardening? What writer on education advocates this doctrine?
 8. Is it the duty of the school to instruct the child on the subjects of cleanliness, food, clothing, exercise, etc.? Give reasons.
 9. What value do you attach to gymnastic exercises in the school?
 10. How does informing the intellect differ from disciplining it?

- GRAMMAR.**—1. Which ought to be taught first, the sentence or the parts of speech? Why?
2. Analyze: November is the month when the deer shed their horns.

3. Correct, with reasons: *a.* It seems to me like this is true. *b.* Every boy must get their lessons. *c.* Has school took up?

4. Are the italicized words in the following, adjectives or adverbs? Show clearly: *a.* The apple tastes *sweet*. *b.* You spoke *harshly*. *c.* She appears *stately*.

5. Correct, with reasons: *a.* Solomon was the wisest of all the other Hebrew kings. *b.* He was the most active of all his companions.

6. Write the plural of potato, lily, sheaf, focus, radius, and Mr. Jackson.

7. Give the use of the italicized expressions and tell the case of each:

a. The wheat is worth a *dollar*.

b. There being no *dew* this morning it must have been cloudy last *night*.

c. He was elected *mayor*.

8. What are the classes of pronouns? Give an example of each.

9. How are the possessive singular and possessive plural of nouns formed? Give examples.

10. Give the use of the infinitives in the following: *a.* He desires to succeed. *b.* I am anxious to succeed. *c.* My wish is to succeed.

GEOGRAPHY.—1. What is the effect of the gulf stream on the climate of England?

2. Distinguish between capes formed by wave deposits and headlands formed by the wear of the sea. Give three examples of each.

3. What is the government of Brazil?

4. Bound France.

5. What are the chief industries of Holland?

6. Where are the highest mountains in North America?

7. Name and locate the chief trans-continental railway lines.

ARITHMETIC.—1. How many pounds troy equal 144 lbs. avoirdupois?

2. Write the table for square measure.

3. The product of two numbers multiplied by $\frac{1}{2}$ is .0005; one of the numbers is .05; what is the other?

4. What is the difference between simple and compound proportion?

5. Find the interest of \$95.00 from May 10, 1880, to April 6, 1884, at 7%.

6. If 5 shillings be worth \$1.22, how much should one receive for an English postoffice money order for £24 11s. 6d.?

7. Find the cube root of 41.063625, and explain as to a class.

8. A merchant marks an article \$2.80, but takes off 5% for cash; his profit is then 33%. What was the cost of the article?

9. How do you point off the quotient in division of decimals?

10. What is the market price of 5% bank stock which yields 6% interest after an income tax of 3% has been paid?

READING.

"O thou great Wrong, that, through the slow-paced years,
Didst hold thy millions fettered, and didst wield
The scourge that drove the laborer to the field,

And turn a stony gaze on human tears,
 Thy cruel reign is o'er;
 Thy bondmen crouch no more
 In terror at the menace of thine eye;
 For he who marks the bounds of guilty power,
 Long-suffering, hath heard the captive's cry,
 And touched his shackles at the appointed hour,
 And lo! they fall; and he whose limbs they galled
 Stands in his native manhood, disenthralled."

1. Write ten questions such as you would give a pupil in order to bring out the thought in the above selection. 10 points, five each.
2. Read a selection to be marked by the superintendent. 50

ANSWERS TO PRECEDING QUESTIONS.

- READING.—1. What wrong is here spoken of?
 2. Why is the word Wrong capitalized?
 3. How many years did it exist?
 4. How was it destroyed?
 5. Explain the expression "And (didst) turn a stony gaze on human fears."
 6. Who "marks the bounds of guilty power?"
 7. What are shackles?
 8. Did the slaves really wear shackles?
 9. Why is the verb *fall* in the present tense?
 10. Explain "native strength" and "disenthralled."

ARITHMETIC.—1. $\frac{144 \times 7000}{5760} = 175$, Ans.

2. 144 sq. in. = 1 sq. ft.
 9 sq. ft. = 1 sq. yd.
 $30\frac{3}{4}$ sq. yd. = 1 sq. rd.
 160 sq. rd. = 1 Acre.
3. If one-half their product is .0005, their whole product is .001; then .001 .05 = .02, the other number.
4. Simple proportion is the equality of two *simple* ratios: In compound proportion one or both the ratios are compound.
5. Counting the time by years and months as far as possible, and then the days, the time is 3 yr. 10 mo. 27 da. $\$95 \times .234\frac{1}{2} = \22.2775 interest at 6%; add $\frac{1}{2}$ of this sum and we have \$25.99.

6. 24£ 11s. 6d. = 491.5s.
 491.5s. + 5 = 98.3s.
 $\$1.22 \times 98.3 = \119.926 , Ans.

7. $41,063,625 \div 3.45$

		2700	14063
94	376	3076	12304
		346800	1759625
1025	5125	351925	1759625

Explanation: Point off into periods of 3 figures, beginning at units. Under the first period write the greatest cube (27) and write its root (3) at the right. Subtract (27) and bring down the next period for a dividend (14063). Take 3 times the square of the root, with two ciphers annexed (2700) for the trial divisor. It is contained in the dividend 4 times: place 4 in the root. Take 3 times the first root figure, with the 2d annexed (94) for the first correction: multiply this by the last root figure for the 2d correction (376). Add this to the trial divisor for the complete divisor (3076). Multiply this by last root figure and subtract from the dividend and bring down the next period for a new dividend. Now add the last complete divisor, the last correction (376) and the square of the last root figure (16) and annex two ciphers for a new trial divisor (346800). This is contained 5 times in the dividend: place 5 in the root, multiply the previous root figures by 3 and annex the last figure for the first correction (1025). Multiply this by 5 for 2d correction (5125); add this to trial divisor for complete divisor (351925), multiply by last figure of the root, subtract from the dividend, and so proceed till all the periods are brought down.

I regard this as the best method of extracting the cube root.

8. 5% of $\$2.80 = 14\text{¢}$.

$$\$2.80 - 14\text{¢} = \$2.66.$$

$$\$2.66 + 1.33 = \$2, \text{ the cost.}$$

9. Point off from the right of the quotient as many places for decimals as the decimal places of the dividend exceed those of the divisor: if there be not so many places in the quotient, supply the deficiency by prefixing ciphers.

10. 3% of $5\% = .15\%$.

$$5\% - .15\% = 4.85\%.$$

$$4.85\% + .06 = 80\frac{1}{2}\%, \text{ Ans.}$$

GRAMMAR.—I. The sentence should be taught first, or *with* the parts of speech. Pupils are already somewhat familiar with sentences, their different forms and meanings, and hence it is the logical order of procedure to pass from the known to the unknown, from the whole to its parts.

2. A complex sentence. *This is the month* is the principal proposition; *when the deer sheds his horns* is the subordinate proposition; *when* is the connective; *this* is the subject and *month* is the predicate, modified by the subordinate clause, of which *deer* is the subject, *sheds* is the predicate, and *horns* the object.

3. (a) It seems to me *that* this is true. Like denotes similarity or comparison and is inappropriate here. (b) Every boy must get *his* lessons. Their is the plural must be *his* in the singular to agree with its antecedent *boy*. (c) Has school *taken* up? Took is the past indicative, and should be the perfect participle taken. Still better—Has school begun?

5. (a) Solomon was the wisest of all the Hebrew kings: Solomon was none of the other Hebrew kings. (b) He was more active than any of his companions. He could not be one of his companions.

7. (a) Dollar is a noun in the objective case, denoting value. It has an adverbial use and modifies worth. (b) Dew is a noun in the absolute case

the participle being. (c) Night is a noun in the objective case, denoting time, and may be parsed as in the objective case without a governing word: or may be governed by some preposition understood. (d) Mayor is a noun, used as the predicate of the sentence; it is in the nominative case.

10. (a) To succeed is used as a noun in the objective case, the object of the verb desires. (b) To succeed is used as an adverb, modifying anxious. (c) Succeeded as a predicate noun after the verb is.

GEOGRAPHY.—2. The former are low and sandy, and the latter are high, rugged and rocky. Of the former—Cape Charles, Cape Hatteras, and Cape Matheral. Of the latter—Cape Mendicino, Cape of Good Hope, and Cape Nisterre.

3. Brazil is now a republic.

5. Agriculture, stock-raising, commerce, and manufactures.

5. In Mexico.

HISTORY.—1. (1) The first settlers were not a working class, and slaves were imported to work the plantations. In the course of fifty years slavery became well established, (1) The English Church was the established religion, and other sects were persecuted. (3) Land was taken from the Indians, generally without compensation. (4) No general provisions were made for the education of all classes.

2. The Quakers of Pennsylvania despised slavery, allowed perfect freedom of religion, bought the land from the Indians, and made provision for general education.

3. Virginia is struggling to provide for the education of her people, which was not considered necessary in the time of African slavery and large plantations. As a result, no school fund was accumulated. Pennsylvania has always been in the front rank in educational affairs. The prosperity of the latter as compared with the former state is very marked.

4. The Revolution determined the right of the colonies to rule themselves. The War of 1812 settled no question except that the Americans would fight if imposed upon. The Mexican War caused a change in the boundaries of the United States and Mexico. The Civil War blotted out slavery and established supremacy of the general government.

5. Washington conducted the Revolution to a successful close. Hamilton was the founder of the financial system of the United States. Jefferson wrote the Declaration of Independence. Jackson suppressed Nullification. And Lincoln, the greatest of all, issued the immortal Emancipation Proclamation.

6. Washington's Farewell Address had much to do with establishing the government upon a firm basis. The Resolutions of 1787 prohibited slavery in the Northwest Territory. Uncle Tom's Cabin intensified the hatred of slavery. Monroe's message on European colonization is a fixed notion of Americans.

7. The United States owning the eastern portion of the Mississippi Valley could control the outlet to the sea. Had the purchase not been made England could have taken it from France.

8. The descendants of the French occupy almost the whole State of Lou-

isiana. Many remnants of the French are found at St. Louis, Kaskaskia, and at Vincennes, such as old buildings, French customs, language, etc.

9. The invention of the modern plow has called into use the reaper, binder, thrasher, and roller mills. The locomotive and steamboat are not required where the foregoing machines are not used.

10. The English oppressed the Indians in the colonies of Massachusetts and Virginia, hence many Indian wars occurred. Rhode Island and Pennsylvania adopted the policy of making treaties with the Indians and dealing honestly with them. As a consequence, peace and friendship prevailed between the Indians and the settlers in these two colonies.

SCIENCE OF EDUCATION.—1. It is the method of questions and answers. Pupils are required to commit answers to set questions, and recite them when called upon. As too often practiced, the answers are committed and recited without any reference to the thought contained in them. Pupil No. 3 recites answer No. 3 simply because it comes after question No. 3. Individual thought is almost suppressed, and the recitation becomes mere parrot-like repetition.

2. The instructor delivers to the class a lecture or talk upon a given subject, treating it in detail, and calling attention to important facts, and perhaps illustrating with objects or figures. Questions may also be asked by instructor or pupils. This method is best adapted to the most advanced students.

3. Deductive reasoning is the process of deriving a particular truth from a general truth. It is an analytical process. It analyzes a universal truth into the particulars which are embraced in it, and affirms of the particular what is true of the universal. It is a descending process, going from higher truths to lower—from general laws to facts.

4. From various sources. Some of them are intuitive; some are derived from induction; some are mere hypotheses, as the theory of gravitation.

5. Arithmetic, Geography, Grammar.

6. Positive education of the body is that education whose direct aim is to develop and strengthen the body. Thus the gymnast and the pugilist pay great attention to diet and exercise in order that their muscles may be developed to their fullest extent. Negative education of the body may result from want of attention to proper education, or from exercise not directly intended to develop the body. A pupil whose seat is not of proper height and shape may become stooped or crooked; or from want of proper exercise and care the body may become weak in some parts and strong in others.

7. Training the body to endure great labor and long continued exercise; a thorough cultivation of all parts of the body in strength and endurance. The ancient Greeks and Spartans attached great importance to physical strength and endurance. Locke and Richter laid great stress upon physical development. Locke's idea of education may be summed up as "a sound mind in a sound body."

10. The first is merely passive. The mind receives but does not act. It is merely the filling of a vessel with water. The vessel contains the water. On the other hand discipline implies activity. Discipline means rules of action. A disciplined mind is a mind capable of well regulated self-activity; to discipline the mind is to train it to act according to the laws governing it.

QUERY AND ANSWER DEPARTMENT.

This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

QUERIES.

45. At what times between one and two o'clock is the minute hand half-way between the hour hand and XII? W. J. MATHEWS.
46. A grocer wishes to mix 100 pounds of coffee at 25 cents with coffee at 28, and 30 cents, making a mixture worth 27 cents; how many pounds of each kind must he take? (White's Com. Arith. p. 305. JOHN A. SHAFER.
47. What is the subject of the verb "holds" in the second line of the 2d stanza of Gray's Elegy? T. D. AKER.
48. In Longfellow's "Children's Hour," explain the meaning of the lines:
 "Till I think of the Bishop of Bingen,
 In his mouse tower on the Rhine."
LINCONNEE.
49. Define the term Bomologom. FRANK DE LONG.
50. Men are like birds. Parse "like." TENA FRANK.
51. Solve No. 5, p. 250, and No. 6, p. 251, Indiana Comp. Arithmetic. JOHN THOMAS.
52. Find the prime factors of 316409, and give your process. CLARENCE C. CUSTER.
53. Explain how and why West Virginia was admitted as a State in 1863. H. C. MOORE.
54. Where is Mt. Tacoma? J. M. CHAFFER.

ANSWERS.

39. $\$180 \div 20 = \9 , the average price of the stoves. If he sell one of the best kind with two each of the smaller kind, his loss and gain are equal—since the number of each are in the ratio of 1, 2, and 2. Divide 20 in proportion to 1, 2, and 2, and we get—

$$\left. \begin{array}{l} 1 \text{ stove at } \$19 \\ 2 \text{ stoves at } 6 \\ 2 \text{ " at } 7 \end{array} \right\} \text{Ans.}$$

BRIMFIELD SCHOOL.

40. $\left\{ (1500 \times 1.00\frac{1}{2} \times .193) + (100 \times 1.01 \times 4.87) \right\} \$1.10 = \$861.09925$.

R. J. ALEY.

NOTE—As the question is stated this is the correct answer. There is no reason why a premium should be calculated on the pounds alone. If that was the intention of the problem it should have been so stated. The answer in the book is incorrect.—ED.

- 41.— $\$126.75 = \text{amt. invested in flour; } 1\frac{1}{2}\% \text{ of this} = \$1.69, \text{ the commission; } \$126.75 + \$1.69 = \$128.44, \text{ proceeds of the sugar; } \$128.44 + .97\frac{1}{2}\% = \$129.733, \text{ Ans.}$

STUDENTS NORTH JUDSON SCHOOL.

242. Assume \$1 as the payment. The final value of \$1 a year for 3 years at 6% is \$3.1836. The compound amount of \$900 for 3 years at 6% is \$1071.9144. $\$1071.9144 \div 3.1836 = 336.6988$, Ans. C. E. WHITE.

243. *As* is a conjunction, used as an index of apposition. *Men* is a noun in the objective case in apposition with *them*. F. TAYLOR.

244. I think the author of the article referred to must be mistaken, for English nouns certainly have case. JAS. F. HOOD.

NOTE.—We hoped to have a reply from the author of the statement, but have received none. Our readers would be pleased to know upon what grounds he bases his opinion.—ED.

230. Auditor—Geo. P. Fisher.
Comptroller—Asa C. Mathews.
Treasurer—James N. Huston.
Register—W. S. Rosecrans.

JAS. F. HOOD.

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MISCELLANY.

HUNTINGTON COUNTY.—Jackson township graduated from its district school March 22d, eight pupils.

THE NORMAL QUARTERLY, of Mitchell, contains a good-looking picture of E. F. Sutherland, President of the Southern Indiana Normal.

LA PORTE celebrated the anniversary of Washington's birth-day by raising two large flags on its school buildings, with appropriate ceremonies.

IF "A Reader" will specify the point in the license law he wishes information on, the Journal will try to answer. The law is too long to print in full.

BORDEN INSTITUTE, at New Providence, has a prospect of more students than it can accommodate for its spring term. The Principal, W. E. Lugenbees, is a hard worker.

BROOKVILLE.—C. W. McClure still has charge of the schools here, and prospering. The senior class of the high-school edit and publish a little paper called the *Quiver*, which is a credit to the class and to the school.

PARKE COUNTY.—Supt. Elson sends out a series of questions for promotion that indicate a comprehensive grasp of the subjects taught, and also indicate that the grading of the schools is very close. Parke county is fortunate in its superintendent and its teachers.

ST. JOSEPH COUNTY.—Supt. Moon has recently issued in neat pamphlet form, "The Organization, Plan, and Purposes of the Teachers' Library Association, and other Information." Mr. Moon is an aggressive worker, and this little hand-book will furnish interesting reading to any one who is interested in how to do it."

RISING SUN recently had a "Children's Day." Appropriate exercises were had in each room in the presence of invited guests, and then all were massed in the street to witness the raising of a beautiful flag on the school-house. Appropriate speeches were made and songs sung, and Supt. E. E. Stevens had reason to be proud of the result.

DECATUR COUNTY has spent \$40,000 on its court-house, and the county superintendent is given an elegant room, nicely furnished, on the *first floor*. Just think of it,—neither in the "attic" nor "basement", but adjoining the Treasurer's office. Supt. L. D. Braden ought to be happy. He graduates from his county schools this year about 120 pupils.

FULTON COUNTY.—The work in this county is moving on in a very satisfactory manner. Supt. A. J. Dillon inaugurated a system of contests in declamation among pupils that proved highly interesting and successful. Primary contests were held in each township, and then each township sent its champion to the county contest, which was held in connection with the county association. School work was also exhibited and the meeting was highly profitable.

THE WAYNE COUNTY Teachers' Association will hold its next meeting in Richmond, April 5th.

The Cambridge City high-school will graduate fifteen pupils this year. The city schools are under the supervision of N. C. Johnson.

The Wayne county summer normal will begin at Cambridge City June 9 and end July 18. The instructors are T. A. Mott, N. C. Johnson, P. J. Kuntz, and B. F. Wissler.

AN EVENING WITH LONGFELLOW.—W. W. Grant, Prin. of the Indianapolis high-school, recently gave an entertainment under the above title. It consisted of about forty stereopticon views, accompanied with appropriate songs, recitations, and readings by the pupils. The results were very gratifying—the entertainment was delightful and the money proceeds were *satisfactory*; and this means more new books for the high-school library.

Perhaps others wishing to give such a performance could arrange with Mr. Grant for his slides.

MINERAL WATER AT SPENCER—An artesian well has been driven at Spencer which gives out water of superior medicinal properties. The water has been analyzed by Dr. J. N. Hurty, of Indianapolis, one of the best chemists in the

state, and he confidently asserts that but few mineral springs in the U. States yield water equal to the Spencer water in medicinal qualities. A company has been organized and a Sanitarium established, which will soon be put in first-class order. The fact that George W. Moore, of Indianapolis, has been made general manager, is a guarantee that all equipments will be of the best quality and that the institution will be conducted in excellent style.

INDIANA UNIVERSITY.—The Pedagogical Department of Indiana University, under the direction of Prof. R. G. Boone, besides the regular course of three daily exercises, sustains: (1) A course of lectures and discussions in School Supervision—more particularly as applied to City Systems. The meetings are held three times a week, and are regularly attended by five young men. (2) A course of lectures to the City Teachers of Bloomington, semi-monthly, and covering the ground of Educational Pedagogy. (3) Weekly meetings by members of the faculty and graduate students for the study of the Teachers' Institute, and its appropriate work. (4) Graduate courses, enrolling at present six young men, doing advanced work in Pedagogy.

FOREIGN EDUCATIONAL NEWS.

GERMANY.—*Manual Training*.—Recently a congress of manual training teachers was held in Hamburg. It was the ninth annual meeting. Delegates from Germany, Russia, Sweden, Norway, Denmark, and the United States of America were present. A special report of the deliberations is not available as yet, but the following statistics are gleaned from the paper read by Dr. Schenkendorff: In Germany manual training has been introduced in 12 normal schools, 13 common and private schools, 14 orphan asylums, 45 "knabenhorte," and several other charitable institutions. Altogether Germany had in 1888 180 pupils' work-shops in 107 cities and towns, with 5500 pupils. The number of manual training teachers was 247. During the year 1888 two hundred and forty-four teachers received instruction in manual training, so that at present since 1881, 1370 teachers have been prepared. The subjects of study are Paper and card board work, wood-carving, joiner and carpenter work, modeling and molding, and forging.

Gotha.—The Seminary at Gotha is henceforth closed to French students who came to take part in the course, being sent by the French government. Reasons are not given.

The ministers of the Gospel and the teachers of the principality of Schwarzburg-Souderhausen have recently been reminded of an old decree according to which teachers are considered "lower church servants," who, as escorts of the pastors, must wear a swallow-tail coat, white tie, high hat, and white surplice.

FRANCE.—*International Teachers' Congress*.—Concerning the nature of practice departments in normal schools, the congress which met in Paris last summer came to the following conclusions: (1) A practice department is absolutely necessary for the technical preparation of teachers. (2) A practice

ool should be in organic connection with every normal school. (3) It should be the type of those schools in which the graduates are expected to teach forward. (4) The principals or conductors of practice schools should be taken from the ranks of public school teachers; they should have an experience of at least five years in the school-room, and be distinguished by skill. (5) The diploma of graduation given in normal schools should contain a mark for school government and pedagogy.

NATIONAL MEETING OF SCHOOL SUPERINTENDENTS.

The twenty-fifth annual meeting of the Department of Superintendence of the National Educational Association was held this year—not as usual in Washington—but in New York City, February 18-20.

Its sessions were in the rooms of the College for the Training of Teachers, and were uniformly well attended by an unusually large body both of Superintendents and interested friends from New York and neighboring towns.

Seven leading papers were read, as noted below, and two conferences had—their topic only being presented for discussion each session.

State and City School Systems claimed three sessions—including Superintendent LaFollette's paper on "School Statistics"; "The General Government of Education", "Popular Criticisms upon the Public Schools", "Negro Education", and the "Relation of Colleges and Secondary Schools" one each.

Forty-seven Superintendents participated in the discussions by previous appointment, and many more voluntarily. Hon. H. M. La Follette and Supt. H. Jones, of Indianapolis, ably represented Indiana.

Twenty-one states were represented either by their state school officers, by their superintendents, by college or normal school men, or by educational journalists. Indiana furnished five delegates—two of whom had places upon the program—as named above.

Prominent among the college men taking an interest in, and participating in the discussion of Common School Questions, were:—

Pres. Elliott of Harvard; Gen. Eaton of Marietta College, Ohio; Dr. Butler of the New York College for the Training of Teachers; Dr. Jerome Allen of the School of Pedagogy, in the University of the City of New York; Pres. M. E. Jones of Rutgers College, New Jersey; and J. W. Johnson, of the University of Mississippi.

Most of the large cities of the country also were represented, and generally their superintendents; the most notable exception being the City of New York itself, whose superintendent did not find time to attend even a single session. One of the most interesting meetings the organization has ever held.

The following notes of the discussions will suggest—not so much their lines, but their general conclusions:

Private schools should be required to report essential statistics of school work to the state authorities, as do the public schools.

Minnesota distributes school funds in proportion to the attendance of pupils

for a period not less than forty days—essentially the plan that has been recently suggested in Indiana.

So important was this subject considered, that the sentiment was strongly emphasized by various speakers, that definite provision should be made for the systematic study of statistics and the use of statistics, in our colleges.

A committee, of which Hon. W. T. Harris is chairman, was appointed to prepare and submit blanks for needed statistical reports, at the next meeting.

School systems must not be allowed to suffer from the much petted idea of popular will. Efficient school systems must come from the most intelligent factors of society—not from the average or the lower class.

Larger results are obtained from the expenditure of funds for education than in any other enterprise in this country.

The district school system was uniformly condemned.

It was stated that with ten normal schools in the state, not 25 % of New York teachers have any professional training.

In Buffalo, in place of a board of education, the schools are managed by a committee of the City Council.

The next meeting is to be held in Philadelphia.

SUPERINTENDENTS' CONVENTION.

The Superintendents' Convention of Eastern Indiana and Western Ohio was held March 20, at Eaton, Ohio. The attendance from Ohio was fair, but from Indiana, slim. Several very important topics were considered. Hampton Bennett, of Franklin, O., presided, but the discussions were informal. Among the topics was the old and yet live topic of "Examinations." Dr. Hancock believes an examination, properly conducted, to be the best simple test known to the profession. It is different from a recitation, which tests readiness of speech and memory, while examination tests retentiveness of memory. Mr. Study of Richmond, while admitting that examinations have been abused, regards them as very valuable tests. Besides, they promote accuracy of scholarship. Their introduction into the country schools of Indiana has greatly improved the character of the work, as shown by common school graduates who enter the high-school.

Another topic just now of great interest to Indiana was the "Cost per capita in City and in Country Schools." It is claimed that there is an injustice in the distribution of the tuition fund, because the schools of towns and cities are larger than those in the country. The difference is due mainly to a difference in management. In the country some teachers receive high wages for teaching only seven or eight pupils. Dr. Hancock stated that he knew of four adjoining districts in which the attendance is from seven to ten. No town board or school superintendent would tolerate such an arrangement. In New Hampshire the small schools are consolidated and the pupils are conveyed to and from school at public expense.

On motion of Mr. Bennett, Messrs. Ellis of Hamilton, O., and Study of Richmond, Ind., were appointed to investigate in their respective states the cost per capita of teaching in country and in city schools, and report at the next meeting of the association.

PERSONAL.

- A. B. Oursler is principal of the Hosmer graded school.
- B. S. Bothwell is principal of the school at Quaker Hill.
- B. Fagan has been for several years principal at Mt. Ayr.
- Thomas P. Ballard and Lewis Parkhurst have become members of the firm of _____ & Co., text-book publishers of Boston.
- Alex. Knisely, Supt. of Whitley county, is only just recovered from an attack of typhoid fever, which began about January 1.
- A. M. Crist, of Thorntown, formerly Supt. of Union county, has been nominated by the Prohibition party for State Superintendent.
- Fraser Richard, well known in Indiana as an institute worker, is now in Washington City, doing a little work for his relative—Uncle Sam.
- Horace Phillips has been principal of the Elkhart high-school since 1883, and the progress of the school shows that he has been doing excellent work.
- Geo. W. Hufford is making a substantial success as Prin. of the Indianapolis high-school, No. 2. He always makes a success, in whatever position he is placed.
- Prof. John M. Coulter, of Wabash College, spent his spring vacation in the Smithsonian Institute at Washington, D. C., doing some botanical work for the Government. Prof. Coulter stands at the head in his specialty—botany.
- James H. Henry, Supt. of Morgan county, has about concluded *not* to be a candidate for the nomination to the state superintendency. Mr. Henry is one among the best of the county superintendents, and would make a good race if he concludes to be a candidate.
- B. F. Moore, after many years of faithful and efficient service resigns the superintendency of the Monticello schools to take charge of the Frankfort schools, and change to take place at the end of this school year. Mr. Moore is a graduate of the State Normal and is a *growing* man.
- A. D. Merchant is principal of the Clear Creek township graded school of Huntington county, from which he has just graduated a class of nineteen. This speaks well for Mr. Merchant, and also for the community in which he teaches. Mrs. Purviance is trustee of that township and deserves special mention.
- E. E. Griffith has tendered his resignation as Supt. of the Frankfort schools, to take effect at the close of the school year. Mr. Griffith has been at Frankfort as Supt. four years, and resigns to make another canvass for the State Superintendency. It will be remembered that he secured the nomination and

made the race two years ago against Mr. La Follette, and was defeated with his party. He is well known over the state and will doubtless make a strong race.

S. W. Thomas, formerly an active teacher in Harrison county, and agent for the Journal, has located at Newbern, Iowa, where he has begun the practice of medicine.

A. H. Graham has tendered his resignation as Supt. of the Columbus schools to take effect at the close of the present school year. Mr. Graham went to Columbus in 1865 and entered the high-school as a student. After graduating, he taught in the grammar grade. He then went to college, and on his return taught in the high-school. He became Supt. in 1869—21 years ago. This is an enviable record. A more courteous gentleman than Mr. Graham is hard to find.

Joseph Carhart, Prof. of English Literature in De Pauw University, will be a candidate for nomination to the office of Supt. of Public Instruction, before the coming Republican state convention. Prof. Carhart served several years as a member of the faculty of the State Normal School, but resigned his place there to accept his present position. He has always taken a lively interest in public school matters, and is at present chairman of the Reading Circle Board—both Teachers' and Young People's.

James A. Marlow, Supt. of Sullivan county, would like the nomination for State Superintendent, at the hands of the Democratic state convention. Mr. Marlow is one of the oldest and most experienced county superintendents in the state, and is counted one of the best. He has been chairman of the state convention of county superintendents, and always takes a leading part in the deliberations of that body. Mr. Marlow made a gallant fight for the nomination two years ago, but was defeated by Mr. E. E. Griffith. He is an estimable gentleman.

B. F. Wissler, Supt. of Wayne county, will be a candidate before the next Democratic state convention for Supt. of Public Instruction. Mr. Wissler stands high as a teacher and as a county superintendent. He has an experience of fifteen years in Henry and Wayne counties as a teacher. He was principal of the Hagerstown schools when he was elected to the county superintendency in 1887. He was re-elected in 1889, and is now serving his second term. Mr. Wissler works hard at whatever he undertakes, and he will doubtless make a strong race.

H. D. Vories, who is now serving his third term as Supt. of Johnson county, will be a candidate for State Superintendent before the next Democratic state convention. Mr. Vories is a classical graduate from the Valparaiso Normal School, and did so well that he was retained in that school for a time after his graduation as an instructor. He has good executive powers, and his county work is in excellent shape. He holds a state certificate, which is a further indication of his scholarship. Mr. Vories is affable and courteous, and will make friends wherever he goes.

IN MEMORIAM.

PROF. E. P. COLE died at his home in Bloomington, Ind., Wednesday, January 29. While a citizen of Indiana since 1849, a resident of Bloomington for years past, for thirty years a teacher in the State, and widely known, especially by the older generation of teachers, he was not a pioneer in Monroe county or Indiana.

He was born in Bergen, N. J., in 1812, and he was nine years old when, by the removal of his father's family to Ohio, he became a resident of what was then—sixty-nine years ago—a part of the great and wilderness West. Ohio, the first established government in the Northwest Territory, was then but nine years a State. After years of privation and struggle he entered Miami University, at the age of twenty-seven, as a senior, graduating regularly in May, 1840.

He was of scholarly tastes and preserved to his death the habit of classical and philosophical studies, being an ardent and intelligent advocate of the thorough training of the prescribed courses in the older institutions.

Mr. Cole had already had some years experience as a teacher near his home in Southwestern Ohio, before entering college; an employment which he continued after graduation. He early became identified with the local and State educational interests, and took the part of a strong young man in establishing a system of common schools then having its birth in Ohio under the inspiration of Lewis, Guilford and McGuffy.

From Franklin, O., Mr. Cole moved to Indiana in the summer of 1849, taking charge of the Randolph County Seminary. Among the pupils of Prof. Cole at Winchester, afterwards an assistant in his school, later an honored superintendent of Richmond and Evansville schools, and now of Leavenworth, Kan., was John Cooper. Remaining four years at Winchester, Prof. Cole was, upon reorganization of the Indianapolis system, invited to take the principalship of a high school. Two years later he was invited to a like service in the organization of the Evansville schools.

In 1857 he moved to Bloomington, and assumed control of the Monroe county Female Seminary. This was the Old County Seminary, transformed by the petition of Bloomington citizens, and others, into a high grade school for girls, where, for nine years, Prof. Cole did this section of Indiana an eminent service. During the years from 1863 to 1873 he was in succession superintendent of city schools in Wabash, Bloomington, Greencastle and Washington; in most of which places school systems were but beginning, and where public opinion on educational questions, and the character of educational agencies, were largely moulded and given their direction by the strong personality of Superintendent Cole.

In the year last named (1873) he became principal of Hopewell Academy, a high grade seminary in Johnson County, near Franklin, a position which he held for seven years, and one which, in 1880, closed his professional labors of thirty-three years as a school master.

For the past nine years Prof. Cole has lived in Bloomington, owning and managing a book store, besides maintaining a large and vigorous interest in most current public enterprises.

In addition to the above services, Prof. Cole was one of the founders of the Indiana State Teachers' Association, December 25, 1854, and the statistics of that body show that he had taught fifteen years previous to that time. He was one of the most active members of the Association during its early years and struggles. The first subject taken up by the Association, after its organization, was the establishment of an educational journal. Mr. Cole introduced the subject by reading a paper favoring the project. One year later, December 26, 1855, he read another paper on the same subject, which was followed by the action of the Association establishing the Indiana School Journal. The first number was issued in January, 1856, he being one of the associate editors. Mr. Cole was Corresponding Secretary of the Association in 1854 and '55, Recording Secretary in 1856 and President in 1859.

As agent of the Journal he travelled, often on foot, through the Counties of Vanderburg, Warrick, Spencer, Perry, Crawford, Harrison, Washington, Lawrence, Putnam, Gibson, Knox and Sullivan, visiting schools, lecturing to the people, and soliciting subscriptions to the Journal.

He was a worker for the State Normal School, and deeply interested in the success of all the educational institutions of the State. Many teachers have acquired larger salaries, but few, if any, have exerted a better and more extended influence on the teachers and schools of the State. His character and labors deserve to be held in grateful remembrance by Indiana teachers.

PROF. RICHARD OWEN, so long and so well known in this state as a leading scientist, died at his home in New Harmony, March 25, from the effects of a poison taken through mistake.

Dr. Richard Owen was the youngest and last surviving son of the famous social reformer, Robert Owen, who established the community of New Harmony, in 1824, upon his own theory of communism, and made a failure of it in three years. Richard had two distinguished brothers, Robert Dale Owen, who earned fame as an author and statesman, and was very prominent in the emancipation movement; and David Dale Owen, whose geological writings are now standard works.

Richard was born in Scotland, Jan. 6, 1810, and received his early education in Lanark, studying subsequently at Hofwyl and in the Anderson Institute at Glasgow. In 1828 he came to New Harmony and began to teach, but soon engaged in business in Cincinnati. Later he returned to New Harmony, where he managed a stock farm until the breaking out of the Mexican war, in 1847, when he obtained a captain's commission and served until the close of the war. In 1849 he returned and aided his brother, David Dale Owen, in preparing for the survey of Minnesota. During the summer of 1849 he explored the north shore of Lake Superior. In the autumn he accepted the chair of natural science in the Western Military Institute of Kentucky, and remained with it till 1858.

He was then appointed Assistant State Geologist of Indiana and made a survey of the state.

When the civil war began he was appointed lieutenant-colonel of the Fifteenth Indiana, and was made colonel of the Sixtieth Indiana in 1861. He was taken prisoner at Mumfordsville, Ky., but was soon exchanged. He was present at the capture of Arkansas Post, Vicksburg and Jackson, and was with General Banks in the Red River expedition.

At the close of the war he became professor of natural sciences in the University of Indiana, remaining there until he suffered a sunstroke in 1879. He has been very active since his retirement, notwithstanding he was confined to his home by physical ailment, devoting much attention to meteorology and publishing many valuable papers. He has contributed largely to the world's fund of geological knowledge, especially as relating to Indiana, Minnesota, New Mexico, Arizona, and North Carolina.

Dr. Owen held the degrees of M. D., conferred by Nashville in 1858, and D. D., conferred by Wabash in 1871, and was a member of numerous scientific organizations.

JOHN K. WALTS, Supt. of the Marion schools, departed this life March 22. Mr. Walts was one of Indiana's leading city superintendents, and as he was in the prime of life the announcement of his death will bring a shock to his many friends throughout the state. He has served as Supt. of the schools of Indiana. Assist. Supt. of Indianapolis, Supt. at Elkhart, at Logansport, and at Marion. At all these places he did good work and made many warm friends. He was a christian gentleman of a high order, and will be greatly missed at the various educational gatherings of the state where he was usually present to cheer and to lend a hand.

The following is from the Marion teachers:

The Committee of Teachers, to whom was referred the preparation of resolutions of sympathy and respect to the memory of Supt. J. K. Walts, who departed this life March 22, 1890, at 6.45 A. M., submit the following:

WHEREAS, It has pleased Divine Providence to take from us, in the full height of his usefulness and in our urgent need of his talent and influence, our beloved Supt. J. K. Walts; Therefore be it

Resolved, That in his death the cause of education in this community suffers a loss which, on account of his efficiency and peculiar acquaintance with and adaptation to its needs and conditions, will be deeply felt and with difficulty repaired.

That society is deprived of one of its fairest ornaments and most estimable examples of intelligence and integrity, whose influence will long be felt and whose memory will be gratefully cherished.

That in the death of Superintendent Walts the teachers of the Marion public schools lose a faithful friend, whose words of counsel and encouragement will long be remembered.

That we, the teachers, tender the bereaved family our most heartfelt sympathy in this their time of trial and sore affliction, and commend them to Him

who alone can hear us from the depths of our sorrow and give us that peace that can be obtained only through his mercy.

5. That a copy of these resolutions be presented to the sorrowing family of the deceased, and that copies be furnished the *School Journal* and the city papers.

MRS. E. C. GEAR, }
ALVA GRAVES, } *Committee.*
M. A. HESTER, }

BOOK TABLE.

NO. 45 OF THE RIVERSIDE LITERATURE SERIES, contains "Lays of Ancient Rome," by Thomas B. Macauley. Houghton, Mifflin & Co., Boston.

THE OHIO SWINE JOURNAL, edited by E. D. Hyre, of Cleveland, O., at 50 cents a year, is worth several times its cost to any one engaged in hog raising.

FARM AND LIVE STOCK is a neat, 16-page, 3-column monthly, edited in Indianapolis, at 50 cents a year, that is worth to any farmer five-times its price.

HARPER'S YOUNG PEOPLE, like all the periodicals of this great house, stands in the front rank of its class. It is a weekly, filled with matter adapted to "young people," and is extensively illustrated.

WESTERN SWINEHERD is the name of a paper devoted to swine raising, published at Geneseo, Ill. The paper is well edited and filled with practical suggestions for any one interested in hog culture. Price 50 cents a year.

THE INDIANA FARMER, published in Indianapolis at \$1.00 a year, is a weekly paper, and is filled with valuable information for every farmer. It is a general agricultural paper and deals with stock raising, as well as grain raising, fruit growing and everything that pertains to farm life. Every Indiana farmer ought to read it.

THE STATESMAN is a monthly magazine "devoted to the problems of practical politics, co-operative industry, and self-help"—published in Chicago at \$2 a year. The topics discussed in this magazine are the live questions of the day, and they are treated by able writers. Such discussions give a very much more extended view than can be found in the strictly political papers.

THE NEW ENGLAND MAGAZINE, published at Boston, is coming to the front rank very rapidly. While it gives large space to general literature it at present is giving special attention to the early New England history. This of course is of deep interest to every student of history, as the early history of New England is vitally connected with the early history of the nation and all its institutions. Price \$3.

THE EVANGELIST'S SONGS OF PRAISE, by Rev. C. V. Strickland, of Agnes, Ind. Published by Mills Harrod, of Dayton, O. Price 35 cents per single copy.

The above is a little book filled with well selected and original songs, suited to church and Sunday-school, but especially adapted to revival services. The songs are inspiring and uplifting in both words and music. Send for a copy.

ELEMENTS OF PLANE AND SPHERICAL TRIGONOMETRY: *By Edwin S. Crawley.*
Philadelphia: J. B. Lippincott & Co.

The aim of the author has been to present in as concise a form as is consistent with clearness that portion of Trigonometry usually treated in a college course. The first part is given in detail and as far as possible fully illustrated by examples. Further on the student is thrown more on his own resources and required to use the material previously given.

ST. NICHOLAS for April contains an article entitled, "Six Years in the Wilds of Central Africa," by one of Stanley's pioneer officers. The excitement over Stanley's rescue of Emin Pasha ought to bring to this number of St. Nicholas a large number of readers, and we feel sure that he who makes its acquaintance will be only too glad to continue it, until an acquaintance with it has ripened into a firm friendship for this excellent periodical for young people. "Crowded with Crofield," a serial begun in Jan. by Wm. O. Stoddard, is a healthful, entertaining story, and ought to give boys and girls an idea of how to be helpful.

THE YOUNG FOLKS' LIBRARY: *Edited by Larkin Dunton. Boston: Silver, Burdette & Co. O. S. Cook, Chicago, Western Agent.*

Book I.—First Lessons. Book II.—Glimpses of the World. These two little volumes are on our table and are very attractive. They are made up of "Stories of Child Life" and stories of "The World and its People," carefully graded to suit children of different ages—all beautifully printed and properly illustrated. These books are admirably adapted for purposes of supplementary reading, to be used at school or at home, or both.

CIVIL GOVERNMENT OF INDIANA AND THE UNITED STATES: *By H. P. Leav-
 enworth. J. E. Sherrill, Danville, Ind., Publisher.*

The author of this valuable little book is now Superintendent of schools at Danville, Ind.

It has been the aim of the author to give in brief, and yet complete form, a statement of the principles of government under which we live. While he makes a short exposition of the federal constitution, the principal part of the book is given to an exposition of the home government—city, township, county, and state. The officers of each are given and their duties set forth. The book will certainly fill "a long-felt want."

THE NEW ECLECTIC HISTORY OF THE UNITED STATES: *By M. E. Thalheimer.*
Cincinnati: Van Antwerp, Bragg & Co.

The eclectic history has been before the public for some nine years and has been largely used. This extensive use, and liberal criticisms by both friends and foes, have suggested some desirable modifications. In this edition all minor defects have been remedied and much of the matter has been re-cast with a view to simplicity of style and definiteness of statement. The great purpose of the author has been to adapt her language to the average capacity of boys and girls, and thus make a *teachable* book. The suggestive questions and notes will certainly prove helpful.

The paper, print, maps, cuts, and binding are all superior. See the book for itself.

THE BEGINNER'S LATIN BOOK, by *Wm. H. Collar and M. G. Daniell.* Boston: Ginn & Co. *W. S. Smith, Chicago, Western Agent.*

While it is true that Latin is not a new study, and also true that those who expect to lay well the foundations of Latin scholarship must traverse pretty much the same road, there is a choice as to the order or manner of presentation of matter, and as to what needs to be specially emphasized in the earlier stages of the study. The authors are practical teachers, and have given special attention to simplicity, clearness and directness, and have had in mind throughout the maximum of practice with the minimum of theory. The book is certainly a model one of its class.

STUDIES IN PEDAGOGY: By *Gen. Thos. J. Morgan, A. M., D. D.* Boston: Silver, Burdett & Co.

Gen. Thos. J. Morgan, formerly principal of the Rhode Island State Normal School, now Commissioner of Indian Affairs, is an authority on pedagogical subjects, and the book under consideration is the outgrowth of many years devoted to teaching and to the investigation of educational philosophy. The author conceives of education as nothing less than the complete development of the human soul through the agency of disciplinary studies. Special stress is laid upon the teacher's work as a trainer, and chapters are devoted to training the senses; the imagination; the thinking powers; the feelings; and the will.

THE STORY OF MEXICO: By *Susan Hale,* is published by *G. P. Putnam's Sons, New York.*

This book is one in a series called "The Story of the Nations." Miss Hale commences her story of Mexico with the *traditions* of the *Shadowy Tribes.* These words are as indefinite as the sources from which she was able to glean her earliest history. Legends and traditions, however, are succeeded by facts, and positive knowledge, and the Story of Mexico is made exceedingly interesting as the reader is borne along through the reigns of Montezuma and Cortez, and down to the ill-fated Maximilian and the popular President Diaz.

To the student interested in Mexico, its history, its people, its resources, the book will be a delight as well as a source of great knowledge.

D. APPLETON & Co., publish in the International Educational Series, a volume entitled "Practical Hints for the Teachers of Public Schools," by George Howland, Supt. of the Chicago schools. It comprises a series of papers read before the teachers of Chicago and vicinity, and were prepared solely to aid the teachers in their daily and hourly work in the interests of the children under their care. Though written for teachers of city graded schools, the principles advanced and advocated are equally fitted for teachers of ungraded and country schools.

Mr. Howland treats such subjects "The Character of the Teacher"; "The Teacher in the School-Room"; "How the School Develops Character", etc., not from the theoretical, but from the practical stand-point. His great aim has been in these lectures to show *how* the schools may be made the well-spring of an upright, true, cultured manhood and womanhood, and a willing, working, watchful and faithful citizenship.

ISTORICAL CHART OF INDIANA, by *Hubert M. Skinner*. Chicago: Rand, McNally & Co.

This is a successful effort to present in a concise form, that will appeal to the eye as well as to the memory, the important facts in the history, the constitution and the government of Indiana. Being in chart form it is always ready for general reference, and will aid in teaching both geography and history. The chart represents Indiana under the French, under the English as a part of Virginia, under the Continental Congress as a part of the Northwest Territory, Indiana Territory under the old constitution, and under the present constitution, each in a separate color. The important facts are ingeniously arrayed and classified. Mr. Skinner will be remembered as the chief clerk under State Superintendent Holcombe

INTRODUCTION TO THE POETRY OF ROBERT BROWNING: By *William John Alexander, Ph. D.* Boston: Ginn & Co.

The book opens with an account of Browning's most striking peculiarities in method and style, and attempts to find an explanation of these in the conditions amidst which the Poet has worked, and in the nature of the themes which he treats. In the next place, an exposition is given of those general ideas pervading his work, which can only be gathered from the study of many of his poems, yet are needed for the full understanding of almost any one of them. This exposition is contained in a series of chapters treating of "Browning's Philosophy," "Christianity as presented in Browning's Works," and "Browning's Theory of Art." These chapters are followed by a brief chronological review of his writings, and characterization of his development. The various points treated throughout the Introduction are illustrated by a series of selected poems furnished with careful analyses and copious critical comments. It is hoped that thus unfolding, in a few typical examples, the characteristics and merits of Browning, the reader may at once be enabled to acquire a real knowledge of his poetry, and be prepared for further unassisted study of his work. The attention of those already familiar with Browning is especially directed to the Analysis of *Myself*, much fuller and more exact, it is believed, than any heretofore published.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville C. Sawyer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

NORTH MANCHESTER COLLEGE—COURSES: Teachers', Business, Literary, Music, Art, Short-Hand, Type-Writing, Collegiate. 3-3t

LIVE ENERGETIC TEACHERS to represent us on a valuable specialty in school apparatus. Steady employment for an indefinite period or for vacation only. Particulars address O. W. Close, 315 Wabash Ave., Chicago, Ill. 3-2t

TEACHERS, IF YOU WANT A MEDAL for your school, send for my Illustrated Catalogue and Price-List. D. J. RAWISZER, Pearl River, New York. 3-4t

Well! Well!! Well!!!

"A TEACHERS AGENCY THAT FILLS PLACES"! That is a new idea. I've heard of agencies that had "calls" and "vacancies" by the hundreds, and took in the registration fees, but never before heard of one that could tell of even a half-dozen places in my state it had filled,—probably they were all too bashful to mention them. There are Teachers "Agencies" by the dozens and "Leagues" that copy the circulars of the successful "Teachers Co-operative Association," to deceive the uninformed, but there is *only one* agency that fills places in this state: that is the "Teachers Co-operative Association," No. 70 Dearborn St., Chicago, Ills.

—INDIANA.—

Here are some of the places filled by them last year:

South Bend,	Assistant High School,	Miss Amoretta Flowers.
Attica,	Penmanship,	W. C. Ramsdell.
Westville,	Principal,	A. H. Smith.
Indianapolis,	Biology in High School,	D. W. McLaren.
Evansville,	German in Seminary,	Miss Hermine Haupt.
Hartford City,	Grammar Grade,	Miss Bertha K. Reynolds.
Edinburg,	Intermediate,	Miss Lillie Maxey.
Kendallville,	Primary,	Miss Minnie L. Bennett.
Marion,	High School Principal,	Mrs. E. C. Gear.
Wabash,	Grammar Grade,	Miss Gladys McVay.
Spencer,	Intermediate,	Miss M. E. Reed.
Rising Sun,	Principal High School,	J. A. Stagg.
Kendallville,	Grammar Grade,	Miss Rose M. Cranston.
Pendleton,	Primary,	Miss Kittie Thompson.
Thorntown,	Principal High School,	John M. Pearce.
Hartford City,	Intermediate,	Miss Bertha Reynolds.
Indianapolis,	Science in High School,	W. S. Lemen.
Evansville,	Assistant Ladies' Seminary,	Ida M. Archambeault.
Elkhart,	German in High School,	Miss E. Allyn.
Princeton,	Modern Languages, Nor'l,	C. L. Rose.
Fort Wayne,	Sciences in College,	William P. Winter.
Pendleton,	Grammar Grade,	Miss E. Kelly.
Princeton,	Science, Normal,	W. Spamatius.
Princeton,	Art, Normal,	Miss Eva L. Shafer.
Oxford,	Principal,	F. Orear.
New Washington,	Principal,	S. A. Harker.
Frankfort,	Assistant,	Miss Bertha Stephenson.

SOME INDIANA TEACHERS LOCATED BY THEM DURING 1889 IN OTHER STATES.

From—		To—
Mount Hope,	J. E. Hirst,	Union, Ill.
Kendallville,	G. H. Stemple,	Litchfield, Ill.
Bloomington,	H. C. Kinzie,	Perry, Ohio.
Dublin,	C. M. McMahon,	Wilmington, Ohio.
Greencastle,	Miss Julia Watkins,	Villa Ridge, Ill.
Lyon's Station,	Miss Eva Scholl,	Oregon, Ill.
Plymouth,	G. L. Weaver,	Whiting, Iowa.
Hanover,	Miss N. E. Wilson,	Birmingham, Penn.
Fort Wayne,	T. Jackson,	Fenton, Mich.
Attica,	J. F. Jewell,	Randolph, New York.
Terre Haute,	Miss Beatrice Sanders,	Negaunee, Mich.
Rochester,	A. W. Moon,	Rising Sun, Md.
Loogootee,	T. J. Shea,	Middletown, Tenn.

Fort Wayne,	Miss A. C. Bailey,	Two Rivers, Wis.
Jeffersonville,	S. E. Carr,	Fulda, Minn.
Tipton,	C. E. Sutton,	Dell Rapids, Dakota.
Kendallville,	O. H. Carson,	Lansing, Mich.
Michigan City,	Miss B. Kennedy,	Correctionville, Iowa.
Lisbon,	Miss Carrie B. Smith,	Kirkland, Ill.
Young's Creek,	Will. W. Apple,	Conyersville, Tenn.
Vincennes,	W. A. Rawles,	Sedalia, Mo.
Crawfordsville,	R. M. Brockman,	Larkin, Kan.
Indianapolis,	Miss S. E. Hooper,	Faribault, Minn.
La Porte,	Miss V. Alexander,	Mapleton, Iowa.
La Grange,	Mrs. A. H. Smith,	Winfield, Kan.
Irvington,	Miss Minnie Thomas,	Havana, Ill.
Pennville,	W. A. Bowman,	Shane's Crossing, Ohio.
Bloomington,	Miss Melissa Marlin,	Glendale, Ky.

Now is the time to correspond with them for positions for the Fall term. Send for circulars, and post yourselves on their work.

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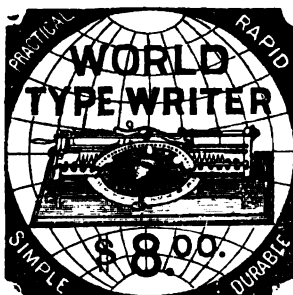
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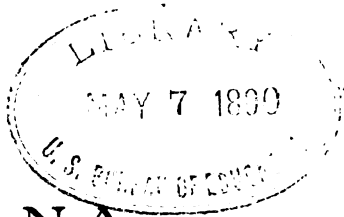
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* *GROUND OF PROFESSIONAL WORK.*

SARAH E. TARNEY, STATE NORMAL SCHOOL.

 ALL school work is based primarily on the nature of mind activity. The subjects taught are not ends in themselves, but means to a higher end, the highest and fullest development of which the child is capable. To work intelligently toward the higher end the teacher must understand the fundamental nature of the mind he is to educate.

In order to make clear this inherent nature of mind let the following illustration be taken. Place an orange before an Esquimaux and he thinks *this object is new*. He sees the orange is not himself, neither is it any other object. In thinking *this object is new*, he finds in the orange his ideas indicated by the words *this object*, and *new*: that is, he unifies three of his old ideas with three in this object: he sees a partial unity between the orange and himself. In perceiving these three familiar ideas, he unifies the orange with three classes; one he calls *this*, another he calls *object*, and a third he calls *new*. In thinking it to be an *object* he sees it the inherent oneness or *unity* with itself, and in the same act he knows the elements, that is, he is conscious of difference or *diversity*. This he knows by finding an idea he calls *this*, another he calls *object*, and still a third he calls *new*. His act in thus far knowing the orange is two-fold, it is a consciousness of *unity* and *diversity*. This two-fold act was put forth in a triple way, it regarded the orange in itself, in its relations to

* Read at the last State Teachers' Association.

other objects, and in relation to the mind that knew it. He did not consciously think that this object is a one, different from other objects and the self, but the very fact that he thought *this object is new* shows he did perceive it as a one, a unity, and also that he did distinguish it from other objects and from the self. In knowing it as a *new object* he necessarily knew it in its unity and diversity.

Suppose the Esquimaux wishes to have a complete knowledge of this orange. In order to do this he must see that each element which helps to make it new is the embodiment of a notion he already has. When he finds that, after all, these new elements are familiar ideas, he has entirely unified the orange with himself. He knows it. He has reached this complete knowledge of the orange by seeing it in its relation of *unity* and *diversity*.

Likewise this idea of unity and diversity is clearly seen in the view taken of mind itself. The mind is an organism, which is unity; it has three phases of activity, knowing, feeling, and willing, which is diversity. In viewing the mind as a unity, all phases of its activity are involved in every act. Each presupposes the others, the others presuppose each. We do not think of a particular faculty as acting in knowing, another in feeling, and still a different in willing, but we see it is the whole mind acting as knowing, the whole mind acting as feeling, and the whole mind acting as willing. We are also conscious of a diversity phase in mind as well as unity. The fact that we are able to distinguish the three elements, knowing, feeling, and willing, from each other, shows this to be true. Moreover, consciousness itself depends upon this two fold nature. When one says *I am conscious*, the *I* is the mind in its unity, an organism. The idea *conscious* that is emphasized is but one element or attribute of itself. The mind thinks this attribute *conscious* as different from itself and in the same act sees their unity. If the mind could not have seen itself and the attribute *conscious* as different it would not have been able to say *I am conscious*, for it would not have been conscious. Such a statement, *I am conscious*, shows that the mind has grasped a unity, but it also shows it has seen this unity in diversity. The mind can not unify two elements or ideas that it can not conceive as different.

Since the subjects of instruction are mind made objective they also illustrate this two-fold nature of knowing. The different branches are only different lines of logically arranged unities and diversities. The

Subjects taught are easily seen to fall into two main groups, first, those that relate to the material world; second, those that deal with itself. As the human mind can know any object only in so far as it is able to see itself in it, all study of the material world is, after all, a study of mind, not through physical manifestation. Ultimately the two groups, those relating to mind and those relating to matter become one; that is, all subjects deal with mind, directly or indirectly. The subjects dealing with mind indirectly are those that treat of the material world; the subjects dealing with mind directly are those relating to mind itself. But it is only the advanced student who sees he is comprehending his own mind more fully when he studies a muscle, a pebble, or a flower. The subjects based upon an indirect study of mind or upon the material world are all of the Natural Science group; Geography of the Geography-History group; and the first or primary ideas of Form and Number. Those based directly upon mind are the Language group; History of the Geography-History group; and the matured, abstract conceptions dealt with Form and Number. The unity in the Natural Science group is in that it deals with facts and principles of the material world; its diversity is seen in the different phases treated in physiology, botany, geology, and the various subjects. The unifying idea in the Geography-History group is the institutional life of the world. It means universal man in his business relations, his education, his social life, his government, and his religion. Geography furnishes the physical basis for the institutions, while History draws from the mental world the spiritual ground for the same. The Language group, based wholly on mind, has for its unifying idea the sentence as the symbol of the thought. Its diversity is seen in reading, spelling, grammar, and composition. The Form and Number group has as its central thought the limitations of quantity. This group shows its diversity in toy blocks for children, stick-laying, drawing, arithmetic, geometry, and kindred mathematical subjects. This law of unity and diversity holds true in regard to the divisions of these groups as well as to the groups themselves. In the Form and Number group is a phase called arithmetic. But in arithmetic the subject of fractions is a unity; percentage another one. Although the subject of fractions is a whole, even the phases of it are unities with their diversity elements. The idea of the numerator of a fraction is a whole with many parts implicit in it. This dividing and subdividing may be carried on until any particular lesson is reached. This lesson, whether it is the word

cat, compound proportion, or the vegetation of China, is in itself a one, but made up of elements that sustain a vital relation to each other. This power of grasping each lesson in its various relations of unity and diversity measures to quite an extent the teacher's capacity.

The ground of professional work is, first, this principle of mental activity, that every act of mind is a consciousness of unity and diversity; second, growing out of this, principles of work. The end of all education is the power to grasp fundamental unities. But a consciousness of difference or diversity is the necessary condition of seeing these unities. This shows that the distinctive feature of school work is in the line of finding diversity. It is the diversity element and not the unity that is most prominently employed. It is the seizing of new relations, it is diversity that leads to freedom. Three fundamental principles of school work will here be stated. The first is based upon the mind's tendency to grasp diversity; second, upon its tendency to grasp unity; third, upon both these tendencies. The first, based upon its tendency to grasp diversity, is, the mind gains most power when exercised to its highest degree; second, based upon its tendency to see unity, the mind acts more easily in a way it has acted than in any other, and also more readily at any one time in a certain way, than at any previous time; third, based upon the dual nature of mental activity, mind puts itself in a condition similar to that of the influencing mind. The first principle stated, that the mind gains most power when exercised to the highest degree, may be made more clear by referring again to the nature of the diversity element in knowing. Because of this nature of mind we are not content to think and rethink old ideas only. It is this inherent tendency to see diversity, to grasp new relations, that shows that the complete emancipation of the individual, his freedom, is potentially a necessity in human spirit. This freedom is dependent upon each person's self-directive power in grasping unknown elements as unknown for the purpose of translating them into known. If at the beginning of a month a man can lift one hundred and fifty pounds, and wishes to lift two hundred at the end, he can do so only by lifting each day more than the previous day, lifting the maximum at each effort. So it is in the mental world. Not the least difficult lesson in reading, geography, or arithmetic should be presented in the easiest way unless it is clearly seen that the easiest way is as difficult as the class is able to take. According to this principle, everything taught should be so presented as to give the pupils the great-

exercise in learning it. Calling the name of the pupil before asking the question; repeating the answers; one pupil assisting another in a relation; questions which suggest the answers; cases of inattention; are, a rule, violations of this principle. This principle holds that the power obtained in working out any point is of infinitely more importance than the one thing learned.

The second principle, the mind acts more easily in a way it has acted in any other, also more readily at any given time in a certain way than the previous time, grows out of the mind's tendency to see unity. In trying to solve a problem the second attempt were just as difficult as the first, and so on for each succeeding trial, the problem could never be understood. But because the mind is able to see unity in its own acts, the second attempt is easier than the first, the third easier than the second, and it may be performed so often that the mind can put forth the entire activity with hardly a conscious thought. This phase of mental activity, unity, is the basis of the formation of habit. It is the ground for reviews and examinations. This principle requires the frequent repetition of points presented; the utmost accuracy as to subject-matter taught and the pupil's reasoning concerning it; correction of all errors in language; a careful watch as to silence, neatness, promptness, regularity, industry, and honesty, the cardinal virtues of the school, the fundamental habits for success in life.

The third principle stated, the mind tends to put itself in a condition similar to the influencing mind, is important because of both phases in mental activity. "As the teacher is so is the school," is the familiar maxim expressing this idea. An interested, thorough teacher makes an interested, thorough school, because the pupils unify their mental condition with the teacher's mental condition, and they also make a more fundamental unity, a unity of their purpose with the teacher's purpose. But if the teacher is irritable and shows lack of interest, the pupils unconsciously put themselves in the same mental attitude. Now they are irritable and uninterested, and for this reason the teacher is unable to reach the results he should reach. In this case as in the other there is *unity of condition*, but now there is *diversity of purpose*. A teacher may understand thoroughly the principles of mental growth, but if he is unable to enter into the very spirit of this work and of his pupils, he comes with himself into the school-room the conditions of necessary failure.

The great difference in school work lies in the difference with which teachers grasp these fundamental ideas. He who solves a problem in a certain way because of a rule, in the truest sense, is no mathematician. He who decides a point in language solely because of what an author may say is no grammarian. It is the truth that is below this rule in arithmetic, beneath this construction in language, that furnishes the reason for one thing rather than another. A knowledge of this truth and this only can make the individual master of this problem and this point in language. To be sure, work may be mainly logical as to its arrangement and fitted to the needs of the child, and for this reason, persons who have no conscious knowledge of these principles may be successful. Their success is not because their work violates these fundamental ideas nor because they are ignorant of them, but that it chanced to be in harmony with them. If such a teacher had known these principles he might have proceeded in an entirely different way because he could see the pupil's highest good demanded it. He could also see that what he before considered good results were only mediocre, and that he had not done for the pupil all that the legal and moral law requires him to do. To an intelligent teacher, if something is not satisfactory, it is because he sees it is not in harmony with fundamental ideas of mind growth.

Thus does the nature of mind determine the entire scope of school work. In every act put forth there is one element, the diversity, that is striving to break down all barriers, that is reaching toward freedom; the other phase, unity, is endeavoring to see that this barrier is, after all, not a foreign thing, but that it is *itself* in a new, a different form. This twofold nature determines the value of any mode of procedure in general and as well, the minutest detail of the work itself. It measures every question, every direction, and shows just to what extent the pupil is being made able to realize in himself the completest round of existence.

NEW WORK FOR INDIANA TEACHERS.

HUBERT M. SKINNER.

THE continuation of the science work by the Indiana Teachers' Reading Circle, as recently arranged by the Board of Directors, invites some comment which may be of interest at this time.

When the plan for a Reading Circle in our state was first proposed to the Teachers' Association (December, 1883), by a distinguished and beloved educator, now no more,* the need and purpose of such an organization were clearly set forth. It was held that teachers need more professional knowledge and spirit, and that they need something more than a text book knowledge of the branches in which they are to give instruction, either systematically or incidentally. In the six years and more that have passed, no essential change has been made in either the declared purpose or the plan of the work.

As to the professional work, it has been all plain sailing. A new field of pedagogical literature has been developed, and the directors have never been at a loss for a suitable work in this line.

As to the general culture work, the case has been different. If more than a text-book knowledge of the subjects is to be acquired, something more than a text-book is needed. In the study of literature, this point has not been pressing, since teachers are generally supposed to have access to libraries of some sort, and to supplement the text book study with further study of authors, as time and circumstances may permit.

When it comes to science, however, the question has to be met, How can the teacher obtain more than a mere text book knowledge of a subject in science (that is, learn something of higher scientific criticism, keep abreast of the times, acquire a broad and general view of the subject) by the study of an ordinary school text-book? Is not a *teacher* needed (and one of broad culture), apart from the book? and with even an ideal book, is it possible to study a science—botany, for instance—at home?

The directors seem to have met these questions squarely, and to have considered carefully the needs to be supplied; and it is for the purpose of presenting the plan in all its bearings, that this article is written. The writer believes that an exceptional opportunity is now offered, not only to teachers, but also to many others who may join the Circle for the coming year in order to pursue the science work at home. Botany is the subject chosen, and appropriately follows the Zoology, the two naturally preceding the Geology (kept in view, probably, for another year).

Of course, a new book, to be especially prepared for the purpose, had to be arranged for, and this rendered opportune an early meeting of the

* MRS. R. A. MOFFIT.

board, that the publication might be completed in time. Every one knows how the great Agassiz taught his pupils to study *things*—plants, stones, etc., rather than books; how his pupils on the Isle of Penikese actually began to analyze plants—not after “14 weeks” preliminary study of Latin terms and abstract questions, but the very first day. A charming legacy of Agassiz is found in a work reproducing his method and especially adapted to home study, and this is to constitute a part of the new book.

Here, then, is the more-than-text-book study—the study of individual plants, as well as of books. Here is the more-than-class-room analysis; for *each* home student is supposed to analyze *all* the plants studied, instead of taking, simply, his place in a class recitation. One hundred or more representative plants are thus to be analyzed in the course, interleaved blanks being bound in the book for the purpose, the student receiving all necessary assistance in this work. After such practice, he will find it simple and easy enough, with the use of a standard Flora, to analyze any other plants at pleasure.

Another very important matter to be considered in connection with botanical study is the recent progress of scientific investigation and research, and the results of higher criticism relating to the subject. This is, preeminently, the day of Sachs and his co-laborers. An enthusiasm hitherto unknown in this field has been awakened by his wondrous work. His “natural groups”—variously modified, here and there—form unquestionably the classification of the future. We may retain the old terms as conveniences, but the old artificialism can never be successfully revived. Teachers naturally desire to acquaint themselves with these new natural groups; with the reasons for the change; with the various artificial systems that have been devised and discarded. Especially do they desire an insight to the now specialized and most interesting study of plant physiology and histology. Arrangement is made for all this in the further make-up of the book to be used and in the Outline to be prepared. Another feature of special interest in the work will be the use of the microscope, for which directions will be given.

The influence which the science work of the year will have upon the schools of the state will be marked and notable. In the country schools, botany is not generally studied as a branch, but many of its principles may be incidentally presented by a representative teacher. Among the

most original and interesting contributions to the Educational Exhibition held in Madison, in 1884, was a display of woodland treasures (woods, leaves, plants, etc.) from Union Co., Ind. Why should not such treasures be gathered by the pupils of every school in the state? Such work is delightful in itself; it quickens the perceptions, and adds to the knowledge of all engaged in it. With suitable directions and hints in the Outline to be used, the collections may be systematic in form and style, and may be of lasting value. May we not hope to see every school-house thus enriched within the coming year?

Now, a final word. The Columbian Fair is not far off. After a while we shall see a hasty scramble in various states for materials to make up a creditable exhibit." People become tired of these periodic demands for extra work. If the foregoing suggestions are followed, a most valuable and striking exhibit will be already at hand, in Indiana. There will not be room in the space assigned us to display the collections of vegetable forms gathered by bright-eyed boys and girls of the country schools and by them intelligently labeled and arranged. And the educators of all lands shall see the Reading Circle manuscripts of the Indiana teachers, not based upon the "back-number" system taught in old school text-books, but with the better analysis of the newer day.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

SHORT NOTES.

HOW TO STUDY.—In the school of long ago the primary pupil was sent to his seat to study his abc's and be a good boy. The teacher of to-day smiles at this and assigns a reading lesson to be "carefully studied" with no other direction. Pupils come to the recitation believing that they have so studied the lesson because they "read it over."

In most schools as they are to-day, it is as useless to assign a reading lesson in this manner as it was to assign the a-b-c-lesson to the pupil of long ago. The children do not know how to study the reading lesson.

ELEMENTS OF GOOD QUESTIONS.—I. Questions should relate to ideas that are relatively worth the time and strength of the pupils.

2. Questions should place these ideas into reasonable, valuable, and appropriate relations to (1) other ideas of the same subject; or, (2) human interests on the side of business interests; or, (3) human interests on the side of culture.

3. Questions should imply that degree of content (or meaning) in concepts which are appropriate to the grade of the pupil, and require that effort at generalization which is in harmony with his grade of development.

L. H. J.

A CASE.

A PUPIL could not understand the following problem: A man wishes to insure his property for \$4,900 so as to cover both property and premium, at 2 per cent. What must be the amount of his policy?

The pupil insisted that \$4,900 must be 102 per cent. of the policy, because, as he said, the value of the property was 100 per cent. and the premium was 2 per cent., then both together would be 102 per cent. This seemed plain to him and some others in the class, but when the teacher said it was wrong, most of them gave it up immediately because they are in the habit of believing that the teacher knows his business. But this particular pupil, often called a flighty pupil and an irrepressible, did not give it up. He did not see why his statement was wrong. In fact he did not see that it was wrong, he only heard the teacher say so. The teacher showed the right statement, but this did not appear to be right to this boy. The teacher undertook to get him to see the wrong and the right. Believing in the principle that no two things can occupy the same place at the same time, he first undertook to prove to the pupil that his statement was wrong. He did it as follows:

Tr. What is premium per cent. of?

Pu. Premium is a per cent. of the amount insured.

Tr. Correct. What was the amount insured in this instance?

Pu. \$4,900?

Tr. What is meant by insuring to "cover both property and prem.?"

Pu. If the property should be destroyed by fire the owner would receive an amount equal to the sum of the amount for which the property was insured, and the premium.

Tr. Then the amount insured in this instance is made up of two parts

Pu. Yes.

Tr. What per cent. of the amount insured is the premium?

Pu. Two per cent.

Tr. Right. If you were to subtract the premium from the amount insured, in this instance, how much money would be left?

Pu. \$4,900.

Tr. Right. What *per cent.* of the amount insured would be left?

Pu. Ninety-eight per cent.

Tr. State the relation existing between the \$4,900 and the amount insured.

Pu. \$4,900 is 98 per cent. of the amount insured.

When thought out this far, the rest was very easy and we will not take time to describe it.

This is not given for the sake of the subject but to call attention to the method of handling the subject and the pupil. It will bear study and will do any teacher good if he will carry the method into all school work.

This teacher recognizes the fact that there is a logical order of presentation depending upon two things,—viz., the nature of the subject and the mind of the pupil. He recognizes the fact that the *present* condition of the mind must be taken into account.

SUPPLEMENTARY READING.

ONE valid purpose of supplementary reading is to test and exercise the pupil's power to interpret written language. When this is the purpose *oral* reading is not necessary and frequently is actually a hindrance. When used it is only to get the language before the pupil through the medium of hearing. If each pupil had a book it *might* be wholly dispensed with.

The attention of the pupil should be called to the *meaning* of words, phrases, and clauses as used in the sentence. The pupil should be held for the meaning of entire paragraphs. The idea of the entire selection should be given.

There are many legitimate devices that may be used to reach this purpose. All can not be given or even suggested in a short article. This much may be said, however: Use no device that will make teacher and pupil drop from view the purpose—the interpretation of printed language.

Let us suppose the selection we are now studying is "The Captain's Well," printed in the April number of the Ind. School Journal, p. 182. The teacher should ask the pupils such questions as follows:

Whom is the story about? Where did he live? What happened to him? Where? What is meant by a "well sweep?" What by "water-

witch"? By "waterless land of sand and sun"? What promise did he make in his prayer? How did he see his house, home, barn, etc.? What is meant by "false mirage"? Why say *false*? Why call this place a "land of hell"? What city was it he rejoiced at seeing? Where is it located? Why did he rejoice? What did the people think of him for digging his well? What do *you* think? Why say "desert *circle* of sand and sun"?

It is an easy matter to ask such questions, but it is not so easy to get the pupils to answer them. If the teacher answers them himself, he has missed his purpose—to get the pupil to exercise his power of interpreting the thought of the printed page.

Suppose the pupil after he has studied the lesson, or thinks he has, says, "I don't know," in reply to the question, "Whom is the story about?" What shall the teacher do or say? Every teacher should be prepared for such unexpected answers. They often come. If the teacher is not ready to meet them, things "flatten out" very suddenly. He can not stir the class at all.

No one can direct another *just* what to say in every case, or in *any* case. Each teacher can have a principle to guide him in what to do. A less complex question should be asked; i. e., one that can be answered by having in mind fewer concepts. For example:

Tr. Read first two lines and see if you can tell me who came back.

Pu. Shipwrecked sailor.

Tr. Read next line and tell me what *his* refers to.

Pu. To sailor.

Tr. Find other words that refer to sailor.

Pu. *He* and *his* in fifth line; *his* in the sixth; *he*, *his*, *I*, *my* and *he* in seventh and eighth lines.

The pupil is now ready to tell who it is that is the subject of the story. But where did he live? Again the careless reader says he does not know. The ready teacher asks him to read the thirteenth and fourteenth lines and think of or consult his geography. Also, read the two lines at the top of page 184.

Again, *mirage* is something unknown. The dictionary and physical geography may be serviceable. "A hint to the wise is sufficient."

ACCURACY IN PUPILS' EXPLANATION OF ARITHMETICAL WORK.

TO BE RESPONSIBLE for the vindication of one's own work, and so instruct other members of a class upon a puzzling question, brings a zest

and a strength of mind that increases the value of the lesson tenfold, if the explanation is properly conducted. It is a trying time to the lover of accuracy in the use of language when the poorly trained class tell the "why" of their work.

Pupils who do fairly good language work in other studies are here often allowed to lose sight of the teaching that thought should be expressed clearly, fully, and precisely. Processes are substituted for reasons, thereby leading the listeners on husks of mental truth. The first rules of number are the servants of the intelligent child-worker, and he should no more be told to add, subtract, multiply, or divide, in order to get a certain result, than the carpenter's apprentice to get a hammer when a nail is to be driven. If the work is hard to manage, a process may be designated, and the handling carefully taught, after which the kind of work will determine the tool.

Pupils should not receive answers to the questions, "Shall I add?" "Shall I divide?" Rules and definitions may be treated with due respect, and yet kept in their places."

The multiplicand names the product, and many complications may be avoided by the thorough teaching of this principle. The meaning of a unit of measure should be taught *before* compound numbers, and used after being taught. Use it in percentage, with or without the element of time; and, in fact, use it in all arithmetical work, never letting the pupil lose sight of it. The words, "It would be," covering so many intricate points, mean nothing, and can be banished.

Do not disregard the tense of the question. Even the youngest pupils soon learn to use the past and present tenses as readily as the future. This alone makes the question more practical and interesting. In the sketches of work to be done on the following day, tense should be plainly specified.

"Find" and "to find" will soon cease to be carelessly used, if it be explained that the words are often unnecessary,—the pupil giving the explanation has no special right to dictate.—SUSAN B. WELCH, *Journal of Education*.

GENERAL INFORMATION.

THE ST. CLAIR TUNNEL.

This tunnel, which is being constructed by the Grand Trunk Railway Co., of Canada, under the St. Clair River—between Port Huron, Mich., and Port Sarnia, Ontario, connecting the lines of the Grand Trunk, of

Canada, and the Chicago & Grand Trunk Railways—is expected to be completed by the end of next year. According to a consular report, the progress during the last two years has been slow, and the work difficult and expensive, much money having been expended in experimental and preliminary work.

The tunnel is being constructed at this particular point on account of the comparatively shallow depth of water, the favorable materials of the river bed, which are shown by the borings to be composed of rock at a depth of from 90 to 95 feet below the surface of the water, overlaid with a bed of clay, the short line of new railway that will be required, and the possibility of constructing both the tunnel and its approaches in a straight line.

The tunnel will be 2,267 yards long, of which 777 yards will be under land on the American side, 770 yards under the river, and 720 yards under land on the Canadian side. Nearly 500 yards of the portion under the river will be almost level. At either end of this section there will be a gradient of 1 to 50, until the approaches are reached. The length of the ascent on the American side will be 1,633 yards; on the Canadian side, 1,657 yards. The minimum depth of the tunnel below the bed of the river will be 15 feet, and the maximum below the surface of the water 66 $\frac{1}{2}$ feet.

There will be but a single line of rails. The cross section will be circular and the clear internal diameter 20 feet. The lining will consist of cast iron. The total cost is estimated at £517,500, of which the Dominion Government has granted the company a subsidy of £77,625.

The advantages to be gained by the construction of the tunnel are a reduction in the expense of transporting trains and a degree of regularity in the services not obtainable by ferry, because the river is so much obstructed by ice in winter and by vessels during the season of navigation. According to the United States consul at Port Sarnia, tonnage passing up and down is estimated to be nearly five times as much as that passing through the Suez Canal, and the necessity for a tunnel is shown by the enormous amount of traffic annually carried across the river St. Clair in connection with the Grand Trunk Railway. During the year ending June 30, 1889, 148,000 through and 13,500 local cars were transferred by ferrying; an average of 524 a day, or 22.6 per hour, which is equivalent to the crossing of a boat load of cars every forty-eight minutes.

School News.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools.
He is also the author of several educational works.]

PICTORIAL SYMBOLS.

IN the transition from the concrete to the abstract, thought is much aided by the use of symbols. Of these the school should make frequent and ample use. Nor should it confine itself to the material symbols of things in general, such as balls and blocks. In addition to these it should use many pictorial symbols.

Pictorial symbols have many advantages which material symbols do not share with them. In the first place the material symbol is primarily external. The thing given, the ball or block, is wholly external and independent of the thought it arouses. On the other hand, the pictorial symbol is primarily internal. It is a representation of an idea. Material symbols are serviceable chiefly where it is desired to *arouse or form* ideas; pictorial symbols, where it is desired to render ideas mobile and to place them at the child's command. Material symbols give information; pictorial symbols facilitate practice.

A very simple illustration will render this quite clear. In teaching the child that eight is four twos or two fours, we may use eight marbles and let the child arrange them successively in groups of fours and twos; or we may let them handle beads in a similar way. In an emergency, or where we saw fit to do so, we might even let the beads stand for marbles without recourse to serious symbolism. The beads are so much like marbles to the child that scarcely an effort of the imagination, but only a little suggestion make-believe on his part would make the matter seem quite real. In either case the child starts with a number of external material things. In handling them according to the directions, whose language is based on his previous knowledge, he reaches the relatively new information that the new number (eight) is composed of two fours or four twos, with which he is already familiar.

On the other hand, suppose the child has been given the problem: "John divides eight marbles equally among four boys; how many marbles does he give each boy?" If, in order to aid the child in the solution of the problem, I were to give him eight marbles, he would probably again arrange the eight marbles in four equal groups, and reach the conclusion that each boy was given two marbles.

But the intelligent process would be a very different one. In the first

place, the child possesses (or is supposed to possess) all the number ideas involved in the problem. He knows the eight and the four, and he will recognize the two as a familiar number the moment the four groups are before him.

Moreover, the eight marbles, with the help of which he solved the problem, hold a very different relation to his mind. They do not, as in the previous exercise, stand for themselves, but for the imaginary eight marbles divided among the four boys by John: they represent an idea, they are symbols in the full sense of the word.

They answer the same purpose which *pictures* of marbles would answer so far as mere power of representation is concerned. The child would have gone through essentially the same intellectual process had he with his pencil made on his slate little round marks or pictures representing marbles, somewhat as follows:

1. "Here are the four caps of the boys:—



2. "In each cap I place one marble:—



3. "In each cap I place a second marble:—



"I see that each boy has two marbles."

These truly pictorial symbols, however, have additional advantages. They are nearer the child's conceptions than the real marbles. They are more clearly symbolized, *representing* John's marbles rather than *standing for* them. They are wholly the child's; he fashions them in clear obedience to his idea, so that they represent primarily the child's *idea of the thing* rather than the thing only. Hence they have more power than the material symbols to aid in carrying on and completing the process of freeing abstract thought from concrete admixture.

In both cases the child is experimenting: in one case, with things; in the other, with ideas. In the one, he gains new ideas; in the other, he makes use of his ideas. In one case the intellectual movement is inward; in the other, outward. It is in these second cases in which the child applies knowledge already gained to given cases that the use of pictorial symbols is to be preferred.

In the choice of forms for the pictorial symbols similar considerations obtain. From tolerable resemblance we should proceed to mere suggestion. At first, in order to secure ready response from the child's mind and to enable him to hold fast his idea in the symbol, it may be desirable to represent a tree, a boy, a girl, respectively, by symbols like the following, in which the child may find a tolerable resemblance to his idea of these things—tree, boy, girl, thus:



Later on a vertical line (thus: |) may suggest any one of these and a variety of other ideas. At first, may be desirable to represent the cherry, the plum, the apple, the pear, by tolerable outlines, thus:—



Later on, the circular outline will suggest any one of these and other ideas with sufficient readiness.

Now, whenever this is the case, whenever the simpler outline suffices, it should be used to the exclusion of others. Only if this is done, will the child gain promptly the invaluable skill of dealing even in concrete cases with pure numbers; of seeing at once in every problem only the *number* relations to the exclusion of all confusing ballast.

CONVENTIONAL SYMBOLS.

Children are still further aided in this important achievement by conventional symbols, such as the figures (1, 2, 3, etc.,) and the signs of operations (+, —, ×, etc.). It is important that the child should learn to use these intelligently as symbols of the things they are meant to represent and not as mere crutches of verbal memory.

In order to accomplish this, it is not so much desirable to postpone the use of conventional symbols, as it is necessary to use them at first,

and for a long time, frequently in connection with the corresponding pictorial symbols. This may be done—nay, *should* be done—from the beginning in exercises of translation from pictorial to conventional symbols, and vice versa

Thus in simplest counting exercises the child may supplement the exercise,—

o co ooo oooo ooooo, or,
 o 8 8 o 8 8 8 8 o, by placing under their pictorial symbols, the corresponding conventional symbols, thus,—

I 2 3 4 5 I 2 3 4 5

It is evident that the constant recurrence of these unvarying conventional symbols in connection with every kind of pictorial symbol (trees, boys, girls, houses, fruits, etc.), involving the same number ideas, will go far to connect the pure number idea with its corresponding conventional sign.

Again, the child is asked, *e. g.*, to count a series of numbers in the shape of trees, houses, boys, etc., thus,—



Here, again, the constant recurrence of the same number relation in connection with its conventional symbol will go far to liberate the corresponding pure number notion.

The matter becomes, perhaps, more difficult when the conventional signs of the operations are involved. At first sight, it might seem quite proper to translate the statement that "two houses and four houses are six houses," into arithmetical symbolism, as follows:

$$2 \text{ AA} -| 4 \text{ AAAA} = 6 \text{ AAAAAA}$$

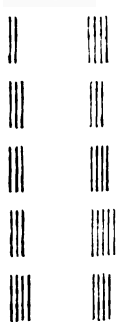
I insert this because such cases have occasionally come to my notice. That it must give rise to confusion in the child's mind, is evident from the fact that it may be read: "Twice two houses and four times four houses," etc. This may be avoided by omitting the pictorial symbols for the houses [$2 + 4 = 6$], or the figures,—

$$[\Lambda\Lambda + \Lambda\Lambda\Lambda\Lambda = \Lambda\Lambda\Lambda\Lambda\Lambda\Lambda]$$

In the first of these cases we reach exclusively conventional symbols pure number notions which, taken alone, are beyond the child's comprehension. In the second case we have a mixture of pictorial and conventional symbols, which still causes confusion, because the conventional symbols for the operations may also serve as pictorial symbols. This will become quite evident if, instead of using the inverted V, we use for the house the more general vertical line |. The statement then assumes the form: $|| + |||| = |||||$, in which marks resembling each other quite closely are used at one time as pictorial and another time as conventional symbols.

There is but one way to avoid such confusion, and that is to keep the kinds of symbols distinct, to use in the same formula or statement only pictorial or only conventional symbols. A number of problems may be placed on the black-board in conventional symbols, and the pupils asked to translate them into pictorial symbols. Thus, the teacher presents the following problems, omitting results:

$$\begin{array}{l} 2 + 4 = \\ 3 + 3 = \\ 3 + 4 = \\ 3 + 5 = \\ 4 + 4 = \end{array} \quad \begin{array}{l} \text{The pupil works them with sticks on his desk,} \\ \text{or with vertical marks on his paper or slate, as} \\ \text{follows, stating the problem on one side of the} \\ \text{line and the result on the other:} \end{array}$$



Here he reads clearly that the two and four on the one side are the same as the six on the other side.

He may subsequently be required to write the corresponding conventional formulas including the result. Thus,—

$$\begin{array}{l} 2 + 4 = 6 \\ 3 + 3 = 6 \\ 3 + 4 = 7 \\ 3 + 5 = 8 \\ 4 + 4 = 8 \end{array} \quad \begin{array}{l} \text{Or problems, involving only pictorial sym-} \\ \text{bols, may be given on the black-board, and} \\ \text{the child required to translate them into con-} \\ \text{ventional forms.} \end{array}$$

I add the following series of typical examples in order to show how the various symbols of operations may be translated into pictorial forms, or vice versa:—

PROBLEMS IN CONVENTIONAL FORM.
(Solutions may be omitted.)

SOLUTIONS IN PICTORIAL
FORM.

$4 (2) = 8$	|| || || ||	|||||||
$8 \div 2 = 4 (2)$	|||||||	|| || || ||
$9 - 4 = 5$	||||| : ||||	||||
$\frac{1}{2} (6) = 3$	|||||	|| || : ||
$3 \times 3 = 9$	||| ||| |||	|||||||

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw University Normal School.]

EDUCATIONAL VALUE OF DEFINITION.

METHOD in definition has been defined as the process of thinking in individuals into unity; or the process of forming the content of a general idea. This was seen to involve the relations of particular and universal—the particular, in unifying, distinguishes the class from others while the universal, in unifying, connects the class defined with others.

The process of definition was found to be complex; involving observation, comparison and contrast, abstraction, and generalization; (1) by the extent of observation; and (2) by induction and deduction, to things which lie beyond the senses.

The two preceding paragraphs are the basis of inference as to the educational value of the definition. The power to discern unity in the midst of diversity; to detect essential likenesses amidst engrossing and non-essential differences; to find the enduring under the mask of obtruding, accidental, and superficial attributes, is a fundamental characteristic of every well trained mind. To define is not simply to unify individuals but, in unifying, to find their essential nature. The common nature which they are unified is the essential nature of each individual. Hence the habit of thinking in the form of definition is the habit of thinking to the true nature of things; which is the primary function of mind.

This unifying act of mind is complex; and has a richer significance and training than at first appears. It requires accurate, thorough, and

logical observation; precise discrimination through comparison and contrast; abstraction of that which abides after differences have been cancelled; and generalization, by holding in mind the differences of individuals while binding them into the unity of their common nature. So while training to correct habits of definition, the teacher is carrying forward a large number of related habits. Too much can not be said, therefore, by way of urging the teacher to train the student in the power of logical definition. The student must be established in this method of thought that such habit may be a power by which he may master the thought of the world.

Definitions are usually treated as mere formal statements to be recited and lodged away in memory, rather than thought processes in fundamental forms of mental activity. That a student have a correct definition of a thing is itself of little consequence; but that, in making such a definition, he has gained new power over the process of defining is vital to education; and, also, essential to the full truth in the particular thing defined.

To reap the best results, the formal statement of a definition should not be made until the student has had a full experience of all the subordinate processes on which the definition is based. In some cases, days could be spent in observing, comparing and contrasting, abstracting, generalizing, before any effort is made to formulate a definition. The formal definition of an infinitive is the last step in the process and the first, as usually given. A definition made in this way, when used for in reproduction, will not be remembered as a form of words; the entire experience in making the definition will, in brief, be remembered. Definitions made in this way can not be forgotten; or, if forgotten, may be reconstructed on a moment's notice.

FUNCTION OF CAUSE AND EFFECT IN ORGANIZING HISTORY.

THE process of organization is based on the perception of identity in the midst of diversity. That this process may be fundamental in history, the organizing idea must be some form of *cause* and *effect*; because the subject-matter of history is preeminently dynamical. This is its fundamental attribute. Hence organization, to be fundamental, must exhibit the material of history as being marshalled by the movement of causal agencies.

In attempting to organize a period or a series by cause and effect, it

is necessary to distinguish between immediate and remote causes and effects. The immediate cause acts directly upon its effect and is near it in time. It performs its function without the intervention of other events. The immediate cause is seldom the efficient cause—certainly never a fundamental one. The Boston Tea Party may be called the cause of the Boston Port Bill, the Specie Circular the cause of the Panic of 1837, the election of Lincoln the cause of the secession of South Carolina. These are causes only in a superficial sense, and have very little organizing value. They are rather to be organized.

Remote causes act indirectly and over a long period of time. They are the great undercurrents of thought and feeling that mould the life of a nation and give direction to the course of events. Remote are more fundamental than immediate causes, for the reason that they touch in their movement a great many events and give rise to many phases of thought and feeling. In this fact is also found their greater interpreting value and the wider range of facts integrated by them. The remote cause is generally the cause of the immediate causes.

The nature of these two classes of causes, their relation to each other and their organizing value are well illustrated in the causes that led to the decline of the Confederation. Here are some of the causes generally given in works on Civil Government:

1. The Confederation had no executive or judicial department.
2. The Congress could not raise an army.
3. No power of direct or indirect taxation was provided for.
4. Congress had no control over domestic commerce.
5. Congress could not enforce treaties with other nations.
6. The Confederation operated on states and not on individuals.
7. The Articles of Confederation recognized the sovereignty of the states.
8. Method of voting in Congress.
9. The people owed allegiance to the state only.

The effect of these and causes that might be named was the destruction of the Confederation. As causes they were forces in the process working out the result named. The student must see them as such and must witness them in this process, if the right interpretation is to be made and a proper value set on each cause as a factor in the result. The danger is that he may commit them to memory and see them as something merely static, hence no organization. These causes may be seen as real forces, but as individual and isolated—as having no relation to one another. Each is viewed as an immediate cause; hence but little organizing value. The remote or fundamental cause has not yet come

to consciousness, hence no unifying idea. In this state of mind the student sees no connection between the first cause given above and the last one. The identity of causes two, three, four, and so on, with the last cause in the list is not perceived. The only connection—the only kinship among these causes—that this view gives is that each aids, as a cause, in producing the same result—the downfall of the Confederation. This view of these causes is vastly superior to the first named, for it yields more discipline and a better understanding of the subject.

Another view of these causes may be taken: the remote or fundamental cause may be found and the others may be interpreted, integrated, and coordinated and subordinated with reference to it. The careful comparison and contrast of the causes listed above, will show that the first eight are closely related to the ninth cause. Such a study reveals that the essence of sovereignty is allegiance. By common consent when the colonies transferred their allegiance, they gave it to their respective colonies. The Continental Congress recognized this relation in creating the Confederation by making the states sovereign. Wherever primary allegiance is placed there sovereignty will reside. This proves allegiance the cause of sovereignty—that cause seven is the result of cause nine. Great men like Madison and Hamilton attributed much of the Confederation's weakness to the fact that it did not operate on individuals. The truth is, the Confederation had no individuals—citizens—on which to operate. The people were citizens of the states, because they had placed their allegiance there, hence cause nine is the cause of cause six. Why would Congress not enforce treaties made by itself? Who violated such treaties? Evidently the citizens of the states. What power had Congress over them? None, since they owed allegiance to their respective states. Thus, cause five is the effect of cause nine. The fourth cause in the list bears a similar relation to the last one. Logically the framers of the Confederation could not have given the Confederation control over domestic commerce, after recognizing that the people owed no allegiance to it. It would simply have aggravated the situation if the Confederation had been given executive and judicial departments. The attempt of the executive to enforce the laws of Congress or execute the decisions of the judges, would have brought the states and the Confederation into violent collision, for the citizens of the states would have been constantly appealing to state authorities for protection. The men who made the Articles were more logical than some of their critics have been. In this way, the remaining causes of the fall of the Confederation may be traced to the remote or fundamental cause—the people owed allegiance to the states and not to the Confederation.

This brief discussion shows: 1. What the organizing idea of the Confederation is. 2. That each cause is interpreted in the light of this idea—that they are identical with it or are forms of it. 3. That each is bound by this fundamental cause into a logical whole. 4. That the value of each of these causes, in producing the fall of the Confederation, is measured by its relation to the fundamental cause.

The above four points indicate the difference in the organizing value of immediate and remote causes, saying nothing of the difference as to mental discipline.

W. H. M.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

THE FEELING THAT LEADS TO KNOWLEDGE.

THE active form of the love of truth is commonly known as wonder or perhaps more commonly, as curiosity. It is the native emotional outgoing of the mind toward the unexplored realm of knowledge. It is the feeling that the mind has whenever it is conscious of a relation that is in its exact nature unknown to it; and the knowledge of which it believes to be of benefit to its own advancement. It is the innate longing of the mind for the as yet unexperienced. It differs from the feeling known as curiosity, if that term is used in its narrow sense. This narrow sense of the term curiosity, is that in which it is used to express the pressure or longing of the mind to fathom a yet unknown relation, not for the purpose of fathoming truth, but simply for the purpose of satisfying the impulse in the mind itself.

Wonder is the mind's innate feeling or interest for the exact nature of the unknown relation which it yet knows to exist, simply for the sake of the knowledge itself, and not for the sake of satisfying the feeling.

Wonder differs also from the feeling expressed by the term surprise in that surprise is the feeling that arises when the mind has put forth an activity different from the one it had imaged itself as about to put forth. Surprise has, frequently, nothing to do with the meaning that the mind reaches in its activity, relating generally to the form of activity itself.

In case of surprise, the meaning which the activity brings about may be one that disappoints or that pleases, hence one sometimes says: "I was agreeably surprised," or "I was surprised and disappointed." In the first case, the surprise arises on account of the form of the activity, and

the pleasure on account of the relation discovered; and in the second, the surprise arises on account of the nature of the activity as a mere form, and the disappointment on account of the meaning perceived. Surprise, then, is the feeling for the unexpected form of activity that the stimulus occasions.

Wonder is the feeling that the mind has which impels it to seek out, for the furtherance of the self, relations known to be, as relations, but unknown as to their nature.

THE MAP AND THE TEXT.

In a recent number of the School Journal, a short article was published under the title, "The Map to Precede the Text," in which the map is given an important place in the study of geography. A writer, in the March number, does not agree with the view given; and the writer of the article first mentioned has been asked by the editor of this department to explain further what was meant in the assertion that the map has primary position of importance.

The first article was not an attempt to outline the subject of geography as taught in the public schools; but was intended merely as an explanation of one of the devices. The writer did not mean to state that the map should be made the basis of geography in the sense that geography work should begin with map work. The force was on the map as a means in the study of advanced geography. It was not intended that the child should begin to use the map in the elementary schools.

Previous to the use of the map as suggested, there should be work on the real things. For the first three years and through a part of the fourth, is the thought that the map has no place. During part of this time, the child is engaged in a study of the geographical elements. He learns that a river is by considering an example near home—one that he can see; then through the aid of imaginary journeys, he studies rivers in foreign regions. Sometimes he molds in sand the element he is studying or draws it, and he is always required to describe it in oral or written language. Thus he obtains its essential ideas; and when, later on, he sees on a map the representation of a river he sees the reality also.

There are some important points in which the author of the article in the March Journal and the writer of "The Map to Precede the Text" are quite in harmony. Surely no one would deny that geography is a study of the life of the globe, and that it is a mistake for the geographies to give special importance to such points as latitude and longitude, al-

though these things are necessary. Other points of agreement are that the map is to be used as a means of supplying surface place-relations, that geography as now taught in some schools is barren because too much is made of the map, and that it is often for this reason a mere study of the location of places without giving an adequate idea of the real things.

The question is as to whether the map should have an important place or not is, however, a point of disagreement. So also is the question as to what the subject-matter of geography is. The paper in the March issue of the Journal assumes that this is "the life of the globe and its localities" without indicating any unifying principle, though doubtless the author had one in mind. This apparently emphasizes the information side and would be in opposition to the principle that the end of all school training is power to think. The writer of the paper in the March Journal seems to include in "life, that is, organized activity," all natural manifestations; for he speaks of solar life, climatic life, and social life, whereas some who have studied this subject limit the term to the organized activity of man. These hold that the aim in geography is to teach man in the institutions of business, society, education, church, and state, and place the emphasis on the first. The child must see the importance of traffic, the mutual dependence of all countries, even those most remotely situated. Not this all. He is to study institutional life in its relation to surface and climate. Here the value of the map as a device is easily seen. Certain data for inference must be furnished before an understanding of the institutions can be reached.

These data must be afforded by certain appliances—the object itself, e. g., the river to be studied, language, the picture, or the map. In deciding which of these he shall use, the teacher must consider the expediency of each and its value as to the mental discipline it affords and the resulting information. The object itself is of course of the highest worth for obvious reasons; but its impracticability in most cases necessitates choice among the three other devices. Language appeals to the imagination, and if the description be carefully constructed, it may furnish the required data. The difficulty, however, is in finding descriptions which give an adequate idea of continents or even of countries as wholes of surface-contour. There are books on geography full of word-pictures which are of great assistance. They have their function and a most important one it is. In the study of a particular locality, these language aids are invaluable, but they are generally not written in a way to give the pupil a clear idea of the surface arrangement of a country as a whole. This he needs before attempting to study the institutions of that country. The

picture, appealing to the eye as well as to the imagination, is also an excellent means in the study of a particular place; but fails to a greater extent than the descriptions in giving the general relief of the country to be considered.

The map affords a means of obtaining the desired data. Through it, the pupil learns the position of the country and can infer what its climate would be if unmodified by surface. He then learns the relation of the surface elements and can reason to the actual climate. So, from the map as a basis of study, he finally pushes to an idea of man in the institutions.

The map is not to be used alone. All the other devices should be called into use; but should follow the map, both as to time and importance.

Geography has for its object the attainment of certain ends (indicated above in the statement of the subject-matter.) If the use of certain devices accomplishes the ends, those devices must be correct. Theory seems to point to this attainment by the means mentioned. More than this, the actual employment of these instrumentalities in the way indicated and the actual accomplishment of the desired results (and examples might be given of this) are surely of value in establishing the point.

The greatest care must be exercised to lead the child to look behind the map. If this is not skillfully and constantly done, the map will be the end and geography work a failure. But if the teacher observes this caution, his pupils will come out from under his teaching not only with the information considered requisite in geography, but with the more valuable discipline resulting from oft repeated acts of imaging the real thing from its representation and inferring effect from cause. This kind of training increases their intellectual power.

F. L.

ONE PHASE OF INTEREST.

THERE are presented in the following, two statements in answer to the question—To what extent should primary work be made entertaining?

1. The first question that arises is, "What shall be considered primary work? In this statement the work of the first four school years will be regarded as primary work. These are the grades in which the pupils have not as yet taken up the school work based mainly on voluntary attention. All the subjects are just being commenced, and everything depends on awakening in the pupils a deep-seated interest in them.

This is the very time when the school-room must present many attractions, or become a restraint to all of childish freedom and impulse.

The question that next confronts us is, "What is to be understood by entertainment?" In this discussion the term is employed to mean that state of interest awakened in the mind by something not *inherent* in the subject in which the interest is centered. The agencies by which this mental condition is aroused are entertaining. It is seen then that entertainment is a form of interest, but in its true or limited sense interest is the feeling that is called into activity by that which is *inherent* in the subject. Thus in learning that 5 and 2 are 7, the use of little dolls or colored beads to make the work concrete gives more interest to the work than would broken matches or marks upon the blackboard, and yet one is no more concrete than the other, nor does either excel in clearness of illustration. The increased interest does not then arise from understanding the process of combining 5 and 2, but from the objects themselves, i. e., from that which is not inherent in the work itself.

Since mind is in itself organic, if the interest be increased, the attention will in proportion advance in activity, and the intellect thereby exert more energy. And since the greatest mental growth results from the greatest exercise of the mind, and this method secures a much greater activity, it must follow that entertainment is a good thing in teaching.

In the more advanced grades *will* may be the basis of attention, but with these younger pupils interest is almost wholly the motive which secures attention, so we see why in the primary grades the interest added by entertaining work is especially useful.

Great precaution should be exercised in selecting these objects of interest. They must be of such a nature and so closely related to the subject that the interest will not be centered in the objects themselves, but immediately and unconsciously transferred to the subject of the lesson. All of the illustrations used in the teaching should be drawn from those things which best please the children, even if others are as easily thought of and fully as clear. The stories for their reading-work should be of such a character as to appeal directly to the heart of childhood, although there are many others of the same grade of language, and in every other way as fitted for a means of accomplishing the purpose of reading.

When an object is used in language-work, the teacher may select one which will in every way fulfill the purpose of the subject, but not one of especial interest to the pupils of that class, and then the work will not hold their attention as it would have done had an object of peculiar attractiveness been employed, and the interest really foreign to the subject have been at once transferred.

The geography work of these grades, especially in the second and third years, gives large opportunity for much commendable entertaining work. In giving an idea of the geographical elements, as volcano, lake, peninsula, island, etc., the ones from foreign countries are presented by the journey method. (For an explanation of the journey element in geography work, see previous numbers of the Journal.) The journey may be taken in such a manner as best to please children, and the sights seen may be described in such a way as to appeal directly to their peculiar interests, thereby arousing an interest in the work which a perfectly accurate description of these same scenes, but given from another standpoint, could not have awakened. The former method is one that draws an interest from that outside of the actual subject matter, and transfers it to the subject. Then the selection of the foreign element which is to present the required type, may be done with an idea of entertainment in mind. If the geographical element under consideration be the volcano, there are others which will give the required idea just as clearly and fully as Mt. Vesuvius, Maura Loa, or Mt. Hekla, but these three are so strange and wonderful in their history as well as their present existence, that a trip to them gives a great delight that the others would not afford; and yet this interest does not draw the attention from the subject-matter, but is itself added to it.

Other examples of work which is improved by being made entertaining, could be presented, but these are sufficient to illustrate the point. In these early years when the child is so capable of enjoying the beautiful, the strange, the wild, and the thrilling, there should in every lesson, in so far as would not hinder the accomplishment of the teacher's aim, be brought in these entertaining objects.

Even if the work be just as interesting in the limited sense as it can be made, after a time, the child will seem to weary, and the teacher must, like Agassiz' "kind old nurse," be ever ready to "sing a more wonderful song, or tell a more marvelous tale:" else it may ever remain true of our schools that—

"The feet that creeping slow to school,
Go storming out to playing."

2. Before entering upon an intelligent discussion of any subject, it is necessary that one should have a clear conception of the root idea of that subject and of the various phases which it assumes.

This subject naturally falls into three main divisions:

a. The field of primary work can not be approximately limited by years or grades; it must be limited by its distinctive idea. It would be just as proper to say that the child begins to reason at the beginning of

the fourth year and becomes automatic in the exercise of that faculty at the end of the eighth year, as to say that primary work begins with the first year and ends with the third year. Mental development is a relative thing; and, as primary work is to result in an amount of mental development which varies with each individual child as to the exact time period of this development, it follows that primary work must be relative as to its time limitation.

The distinctive or root idea of primary work is that it consists very largely of undifferentiated objects as present or past, i. e., objects in which but few relations are grasped. The first ideas of the different subjects studied by the child during the first year of his school-life come to him very largely through the direct agency of sensuous objects. The child is unable to see the necessity in the objects, and hence can not reason in their absence with any considerable degree of skill. This stage of knowledge is the stage of sense-perception in which present particular things or events are known through the direct exercise of the senses, as seeing, touching, tasting, etc.

The second stage is that in which the memory becomes more active. During the second and third years memory comes quite prominently into exercise, and in this stage the child in addition to thinking about objects present relates them consciously to "particular things once present but no longer so." He begins to free himself from the object world.

b. Interest is the feeling of identity of subject with object, or self with not-self. Without interest there can be no continuous mental effort, and without continuous mental effort there can be no mental development; hence the principles, interest is the basis of attention, and attention the basis of development. Work may be either interesting in its unity or in its diversity. A thing may be either interesting in itself or in its associations. In working with an object it is a source of interest to the child to trace out not only those things which make the object a unity, but also those things which separate the object from other objects.

c. Webster gives as one of the meanings of entertainment that it is "that which amuses." This is the sense in which the term is to be used in the present connection. The question naturally arises, "Is entertainment a legitimate device, and if so, to what extent should it be employed in primary work?" All devices in education must spring from the subject-matter of education viewed as the instrument by which the teacher shapes the education of the child according to what he believes to be the destiny or outcome of the child's life. We must needs test the validity of entertainment in primary work by the distinctive idea of primary work and its relation to the work of advanced grades. The mind of the child

naturally averse to continued mental effort, his intellectual grasp is weak, and his interest in an object is only temporary. The child builds up his house of blocks. To him it is no toy, yet as soon as he has finished his structure, he loses interest in it and is ready to tear it down. The child takes interest in the mere doing of a thing when it carries along with it mere amusement. Unlike the pupil of the advanced grades, he takes no interest in contemplating the remote purpose of the work.

Just to the degree that entertainment sustains the child's interest in an object and leads him to see more in it should it be made a feature of primary work.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

IN ASKING to have the address of your Journal changed, please do not forget to give the old as well as the new address.

YOU WOULDN'T THINK IT, but *it is a fact*.

What's a fact?

That a few teachers who promised to pay Jan. 1, have not paid yet!

IF TEACHERS will read the advertisements they will be well repaid. Even if they do not now wish to buy what is offered for sale, they learn what there is and are *posted* as to what there is new.

IOWA has a new school-book law. A strong effort has been made there for several years to secure state uniformity, but the outcome is a law providing for county uniformity, if the people vote for it, and providing that the school authorities shall purchase books and sell them to the pupils at cost price. Cities are not compelled to use the same books used in the country, but may do so.

By a new process an *old* edition of Webster's Unabridged Dictionary has been re-produced on cheap paper and in inferior binding and offered at the very low price of \$2.50 and \$3.00. The book is as large as the present edition and is possibly worth the price asked, but persons should understand exactly what they are getting. The present edition contains more than 10,000 words not found in the old reprint.

ANALYSIS OF BLAIR BILL VOTE.—An analysis of the vote by which the Blair bill was defeated in the U. S. Senate shows that twenty-three republicans and eight democrats voted for the bill, and seventeen republicans and nineteen democrats voted against it. Of the fourteen paired, nine were democrats and five were republicans, making fifteen democrats for and twenty-four against the measure, and twenty-six republicans for and twenty against. Of the fifteen democrats in favor of the bill, thirteen were from the southern states.

TEACHERS' ASSOCIATIONS.

Very full reports will be found elsewhere in this Journal of both the Northern and Southern Teachers' Associations. They were both unusually well attended and both had more than average ability and interest in their meetings.

The Southern was held at Aurora the last week in March, while the Ohio was "on a high," and it rained almost continuously. The high water kept a few away, but nothing was able to dampen the ardor of those who came. The teachers were entertained, with rare exceptions, at private houses, and the good people of Aurora deserved and received the unqualified thanks of the Association for their enthusiastic hospitality. F. D. Churchill, chairman of the Executive Committee and Supt. of the Aurora schools, doeth all things well. Those who arrived in time to visit his schools made very favorable reports. Supt. Graham, of Columbus, made an excellent president.

The Northern was held at Columbia City the first week in April, and was the largest and most enthusiastic meeting that body ever held.

The writer spent a half-day in the schools and can testify to their superior merits. W. C. Palmer, the Supt., has reason to be proud of his schools, and of the meeting which he arranged for and presided over. Supt. R. I. Hamilton of Huntington came over with his entire corps of teachers and captured the Association for next year.

THE MODEL HOME.

Some time ago the proprietors of the *Indianapolis News* offered a premium of \$25.00 to the person who should write in a limited number of words the best description of an "Ideal Home." More than *fifteen hundred* persons competed and the judges had a heavy task to go through the manuscripts. The judges were Mrs. Lois G. Hufford, Miss Fidelia Anderson, and Miss Charity Dye, all teachers in the Indianapolis high-school. It is rather remarkable that they should all independently decide on the same composition.

The successful competitor was Miss Ida Albertson, a teacher in the Friends' Academy at Plainfield. The *News* published the prize production, together with a picture of the author and a very complimentary sketch of her life, in its issue of April 19th. Here is the

PRIZE IDEAL HOME.

Could ye but bid the hand and pen
From the dead years again to come,
That once, endued with magic power,
Wrote words of "Home, sweet home"—
Well might ye put your question then,
Methinks the bard would sing
A song, whose echoes, grand and sweet,
Through all the years would ring.

Think you he'd tell of broad estates,
Or gilded halls and sumptuous fare?
Were these the best that life could give
Then happiness were rare.
Oh, naught to him those mansions grand,
Or gifts by fortune flung;
For home is home, if love be there,
And "home is sweet," he sung.

'Tis little matter where the spot,
In sunny clime or frozen part,
If but its home-blown roses keep
A summer in the heart.
'Tis where we find a sure retreat,
Tossed by the storms of life,
And from its blessed influence take
New courage for the strife.

Where noble aims inspire the soul,
And high pursuit, and honest thought;
Where generous deeds and actions true
By hand and brain are wrought.
Where each is loyal, God is king,
And love for love is given,
And more than any place on earth
It seems a bit of heaven.

THE AMERICAN BOOK COMPANY.

The American Book Company is the name of the new book house formed by union of the old firms of Ivison, Blakeman & Co., A. S. Barnes & Co., Antwerp, Bragg & Co., and D. Appleton & Co.

The directors of this new firm are made up of four members from each of the firms. The officers are: Birdseye Blakeman, president; Alfred C. Barnes, president; Henry T. Ambrose, treasurer; and Gillman H. Tucker, secretary.

The new firm is to own absolutely all the school-book plants belonging to the different firms, including stock on hand, plates, copy-rights, good will,

Madame estimates the wealth of the new firm at not less than \$4,000,000, and says it may reach \$5,000,000.

It has been estimated that the four houses composing the firm ("The Big Four") furnish not less than *two-thirds* of all the common school text-books in the United States.

The promoters of the new enterprise deny specifically and vehemently that it is the nature of a "trust," or that it has any of the features of trust management, organization, or policy connected with it. They are equally emphatic in

stating that it is a movement in the direction of lower prices for books.

The headquarters of the new firm is in New York, and it begins business May 1, 1890.

Various reports in regard to the absorption of other book houses have been going the rounds of the press, but they are largely speculation.

EXEMPTION FROM EXAMINATION.

The following question has been recently submitted by two or three different teachers: "If a person holds a two year license and has taught for six years, does he have to be examined? Please answer through the Journal."

The law that determines the answer to the above question is not clear, as it uses *three years* a part of the time, and *two years* a part of the time. The State Superintendent took it for granted that "three years" was meant, assuming that the legislature intended to excuse from examination only those holding the highest grade license. Later the Attorney-General examined the history of the legislation and decided that *two years* was intended.

It is held that the following requirements must obtain under the above opinion:—

1. The applicant must have taught the six full school years last past.
2. He must hold either a two year or a three year license *in force at the time of making application* for a renewal.
3. The renewal is valid only in the county where it is issued; and then only on condition that the holder teaches without interruption.

THE KNOX COUNTY CONTEST DECIDED.

Quite a number of contests arose out of the election of county superintendent last June, but most of them were settled within a few months. The one in Knox county was appealed to the Supreme Court and was decided only a few days ago.

The case briefly stated is this: W. H. Johnson was duly elected county superintendent and was duly qualified, but he did not present his special bond required by the new school-book law until within the thirty days after the Governor had issued his proclamation declaring the law in effect. The commissioners held that the bond should have been filed within thirty days after the date of his election, and declined to accept it when offered. They went further and declared a vacancy in the office of county superintendent, and appointed W. H. Pennington to fill the place. Mr. Pennington declined under the circumstances to accept the place. In September they appointed Thos. Cropper who accepted and qualified. Then Mr. Johnson appealed to the Circuit Court which after a trial decided in his favor. The commissioners then appealed to the Supreme Court, and its decision just handed down is in favor of Mr. Johnson. The court ruled that the commissioners had a right as ministerial officers to pass upon the validity of a bond, but that they had no right to exercise a

official function and declare a vacancy. The court held also that the law being now in force, superintendents hereafter will be compelled to file their special bonds within thirty days from their election.

THE NATIONAL EDUCATIONAL ASSOCIATION will meet in St. Paul, Minn., July 5 to 11. This promises to be one of the largest and one of the best of its annual gatherings. The representative educational men of the entire country will be there, and it always pays teachers to hear and see and know these leaders of their profession. The fare for the round trip is just half the usual rate, and the hotel rates range from \$1.00 to \$3.00 per day. St. Paul is at the head of navigation of the Mississippi River and is in the midst of summer resorts. All things considered this affords a splendid opportunity for a vacation trip. All roads give the same rates, but there seems to be a general disposition to connect with the C. B. & Q. at some of its points because it runs for several hundred miles along the bank of the Mississippi.

THE NEW SCHOOL-BOOK LAW seems to have the floor now. While there is no doubt as to its constitutionality and its compulsory feature, those opposed to it had to the books adopted, did all they could in a legitimate way to ward off its enforcement; but now that the Supreme Court has settled all disputed points, everybody acquiesces and proposes to give the law a fair trial and fully test its merits. This is right.

THE President has signed the bill and it is now settled that the World's Fair will be held in Chicago in 1893.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN MARCH.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

SCIENCE OF EDUCATION.—1. Name four leading treatises on education, and give the author of each.

2. Explain what you understand object lessons to be, and state what you consider the design of such lessons.

3. In the study of Physiology do you consider it important to dissect some of the organs of an animal, as the eye, the heart, etc.? Give your reasons.

4. Of what service would a microscope be in the study of Physiology?

5. To what extent in the study of Geography can the children be led to consider the actual object?

6. What is the value of map-drawing in Geography work?
7. When, for example, the map of England is studied in the text, and drawn on paper, and drawn on the board, what faculties of the mind are exercised in acquiring the knowledge of the object represented by the map?
8. Referring to question 7, can the mind be said to *know* an object when it has access only to a representation of the object?
9. What is a law of the mind?
10. Define a faculty or power. (Answer any six questions.)

GRAMMAR.—1. Like what parts of speech is *writing* in this sentence? Your writing the sentence so well secured the prize. Show clearly that it is like them.

2. Analyze: He is as rich as Cræsus.
3. Correct if necessary and give seasons: (a) There goes my mother and sister. (b) Did you sleep good? (c) Where was you when I called?
4. Give the adverbial idea expressed by each adverbial modifier in the following: (a) How swiftly glides the bonny boat. (b) The navy of Hiram brought gold from Ophir. (c) The sun shines brightly on the tree-tops.
- 5-6. Show clearly how you would lead the child from the simple to the complex sentence.
7. What part of speech is each italicized word, and how is it used? *My* going *there* will depend upon my *father's* giving his *consent*.
8. What are the special uses of the word *it*?
9. In what respects are the phrase and the clause alike? In what different?
10. Give the use of the infinitive in these sentences:—

- (a) David hastened to meet Goliath.
- (b) The Puritans desired to obtain religious freedom.
- (c) To live in hearts we leave behind us is not to die. (Any eight.)

PHYSIOLOGY.—1. Describe a tendon and state its use. A ligament. The synovial membrane. Cartilage.

2. Describe the circulation of the blood in the liver.
3. Describe the mucous membrane of the stomach.
4. What are the objects of ventilation? What difficulties attend our effort to secure these objects?
5. Of what kinds of matter is the brain composed? Describe each.
6. Give directions for the care of the brain.
7. Explain reflex action of the brain. What are the purposes of it?
8. What provision would you make for the ventilation of an ordinary school room? (Answer any six.)

ARITHMETIC.—1. A man travels until his watch is 19 min. 55 sec. too fast. Has he traveled east or west, and how far?

2. A merchant sold $3\frac{3}{4}$ yards of cloth for \$17. $\frac{1}{8}$, $5\frac{1}{2}$ yards for \$23. $\frac{3}{4}$, and $8\frac{1}{8}$ yards for \$27. $\frac{1}{8}$; how many yards did he sell, and how much money did he receive?

3. Reduce 4 gal., 1 qt., 1.28 pt. to the decimal of a hogshead.

4. Reduce $56\frac{1}{4}$ to a common fraction in its lowest terms.
5. Which will yield the better income, 8% bonds at 90 or 7% bonds at 80?
6. What principal will in 7 yrs. 4 mo., at 8%, amount to \$749.70?
7. Sold a book-case for \$125 and cleared $\frac{1}{10}$ of this money; what would I have gained per cent. by selling at \$120?
8. A field 900 feet long is 720 feet wide at one end and 600 ft. at the other; how many acres does it contain?
9. Two men paid \$150 for a horse; one paid \$90 and the other paid \$60; they sold it so as to gain \$75: what was the share of each?

READING.

"Many a night from yonder ivied casement, ere I went to rest,
Did I look on great Orion sloping slowly to the west.
Many a night I saw the Pleiades, rising through the mellow shade,
Glitter like a swarm of fire flies tangled in a silver braid."

1. Write ten questions such as you would give a pupil in order to bring out the thought in the above selection. 10 points, five each.
2. Read a selection to be marked by the superintendent. 50

U. S. HISTORY.—1. Give a series of events or incidents of our history, showing that while the colonies first resisted the mother country merely for encroachment on their rights as Englishmen, they finally based their demands on their rights as human beings. Was this change of attitude a natural growth or a violent revolution?

2. Write five things you will try to teach in the biography of Alexander Hamilton.
3. Give a full statement of the principles at issue between the United States and the late Southern Confederacy. How many and which of these were settled by the Civil War?
4. In how far did the questions of climate and soil enter into the perpetuation of slavery in one part of our nation and its extinction in another part? Explain.
5. The people of the United States resisted England in the beginning of the War of the Revolution on account of the violation of a long established right of an English subject; they resisted England at the beginning of the War of 1812 on account of the enforcement of a long established right of the English government. What was each?
6. Describe briefly the difference between the industrial and social systems in vogue in the North and South previous to the war.
7. Name the five greatest interpreters of the Constitution which this nation has had. In what respect have these differed greatly in their views of constitutional provisions?
8. What were the questions at issue in the proposition to admit Texas to the Union?
9. What recent movement has been made for a closer commercial union among the three Americas?

10. How many distinct regions of country have been publicly made the subject of a proposed separate government since the Revolutionary War? Designate the regions. (Answer any seven.)

GEOGRAPHY.—1. Name the chief products of Louisiana.

2. What is the southern limit of frost in the United States? Name some trees which can not come north of this barrier.
3. Where are Alsace and Lorraine?
4. What are the trade winds? How are they caused?
5. Name in order the largest five towns of Indiana.
6. To what is the change of seasons due?
7. What is the climate of Utah?

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. What is meant by ivied?

2. Define casement.
3. What is Orion?
4. Do you know Orion?
5. Do you know the Pleiades?
6. What time of the year are these two constellations prominent?
7. How are the Pleiades like a swarm of fire-flies?
8. What represents the silver braid?
9. What is meant by the mellow shade?
10. Describe this picture in your own words.

GEOGRAPHY.—1. Sugar, cotton, corn, rice, tobacco, peaches, plums, figs, oranges, and lemons.

2. About the 30th degree of north latitude, although snow sometimes falls below that line. Palm, cocoa-nut, palmetto, magnolia, live-oak, etc.

3. Provinces lying west of the Rhine, now belonging to the German Empire, formerly a part of France.

4. They are constant winds in the tropical regions—northeast in the northern hemisphere and southeast in the southern. They are caused by the movement of the air from the colder regions toward the tropical regions, and the revolution of the earth on its axis. If the earth did not rotate, the trades would be north and south.

5. Indianapolis, Evansville, Terre Haute, Ft. Wayne, and New Albany.

SCIENCE OF EDUCATION.—1. "Thoughts on Education," by Locke; "Emile," by Rousseau; "Pedagogics as a System," Rosenkrantz; "Leonard and Gertrude," Pestalozzi.

2. Lessons illustrated by objects. Some object is presented to the pupil and its form and properties are discussed and described by the pupil, aided by the teacher; objects are compared with others and pupils are taught to express their statements in proper form. The design of such lesson is to develop perception and expression.

3. Yes. The only way to get a correct idea of many of the organs is to examine the objects themselves. Good descriptions and correct pictures aid very much, but the object itself is very much better.
4. The construction of the tissues, arrangement and form of cells, can only be seen by the microscope. The blood discs, for instance, can only be thus seen.
5. In teaching the first principles of geography the school-room and school-yard can be accurately mapped; every object in the room, and every tree, walk, gate, or other object in the yard can be located on the map. A high hill may be made to represent a mountain; a creek will illustrate a river; a pond will be a small lake.
6. It is very valuable in giving the correct idea of form and position, also the relation or situation of one country or state with regard to others; the course of rivers and mountains; the position of important cities and towns. Also as an exercise in drawing it is of considerable value.
7. Imagination, memory, judgment, perception, and reasoning.
8. Not thoroughly. It can know something of the object. The mind can know *something* of a lion without one having ever seen a lion, but only a careful study of the animal itself will give the mind a thorough knowledge of it.
9. A law of the mind is a fixed rule according to which it always acts: a constant mode of action of the mind: a certain course which the mind always follows.
10. A mental faculty is a capacity for a distinct form of mental activity. It is the mind's power of doing something, or of manifesting itself in some particular manner.

ARITHMETIC.—1. 19 min. — 55 sec. $\times 15 = 4^{\circ} - 58' - 45'' =$ the distance traveled. He must have gone west as his time is *fast*. The number of *miles* traveled depends upon his course and latitude.

2. $3\frac{3}{4}$ yd. for $\$17\frac{1}{8} = \17.125
 $5\frac{1}{2}$ " $\$23\frac{3}{4} = \23.25
 $8\frac{1}{2}$ " $\$27\frac{1}{2} = \27.20

 $17\frac{3}{8}$ " $\$67\frac{23}{8} = \67.575
3. 1.28 pt. $+ 2 = .64$ qt.
 1.64 qt. $+ 4 = .41$ gal.
 4.41 gal. $+ 63 = .07$ hhd., Ans.
4. $56\frac{1}{4} = \frac{225}{4}$, or probably $.56\frac{1}{4}$ is meant. $.56\frac{1}{4} = \frac{225}{400} = \frac{9}{16}$.
5. $8\% + .90 = 8\frac{9}{10}\% =$ increase of the first.
 $7\% + .80 = 8\frac{7}{10}\% =$ " " second.

Evidently the first is better.

6. The amount of $\$1^{20}$ for 7 yr. 4 mo. @ 8% is $\$1.58\frac{2}{3}$. $\$749.70 + 1.58\frac{2}{3} = \747.50 .
7. $\$125 - \$12.50 = \$112.50$, cost.
 $\$120 - \$112.50 = \$7.50$, gain.
 $\$7.50 + \$112.50 = 6\frac{2}{3}\%$, Ans.

8. The average width is 660 ft. $\frac{660 \times 900}{66 \times 66 \times 10} = 13\frac{7}{11}$ Acres.

9. Their shares are as 3 to 2.

$\therefore \frac{3}{5}$ of \$75 = \$45 = first share.

$\frac{2}{5}$ of \$75 = \$30 = second share.

NOTE.—The prices in the second are pointed incorrectly. I have taken them as they are most probably meant.

GRAMMAR.—1. It is like a verb because it takes an object after it.

It is like a noun because it is modified by the adjective element *your*.

2. This is a complex sentence. The principal proposition is, "He is as rich"; the subordinate proposition, "Croesus" (is rich); *as* is the connective.

4. (a) Simply denotes manner.

(b) From Ophir, denotes place.

(c) Brightly denotes manner; on tree-tops denotes place.

5-6. Teach clearly the simple sentence standing alone. Then teach simple sentences containing related ideas. Then write these related sentences into one, by using proper connectives.

7. My is a personal pronoun, used to modify going. There is an adverb of place, modifying the participle going. Father's is a noun in the possessive case, used to modify going. Consent is a noun in the objective case, the object of going.

8. *It* is often used as an expletive. It often represents a word or phrase which follows it. It is used as the subject of an impersonal verb, and has no obvious antecedent.

PHYSIOLOGY.—4. Principally to supply oxygen to the lungs; to remove the foul air that rapidly accumulates in a room; to reduce the temperature when too high. It is often difficult to ventilate without exposing persons to a draft of cold air. It is often difficult to distribute a proper amount of fresh air to all parts of the room. It is difficult to get a means of ventilation that is successful at all times and in all conditions of the weather.

6. The blood should be kept pure. It should not be over-worked. It should have regular periods of work and rest. Excitement and anger should be carefully avoided. The brain should be supplied with a proper amount of blood.

7. The action of the brain in sending stimulus or force outward to other parts of the body is called reflex action. By it the action of the involuntary organs is kept up and life sustained.

8. Arrange the windows so that they could be lowered at the top and raised at the bottom. A board might be placed slightly in front of the bottom of the window to cut off any draft. The transoms over the doors should work on hinges. The stove door should be kept open as much as possible.

HISTORY.—1. The colonists protested against taxation without representation, declared opposition to the Stamp Act and tax on tea, and appealed to the King for redress of their grievances. Having failed in all their petitions, they resorted to arms as the last remedy.

2. (1) An account of Hamilton's youth and education. (2) His intense passion

troism. (3) His services in the Revolution. (4) His notions of a Republic. (5) Hamilton's financial ability.

4. The Negroes being accustomed to a hot, inhospitable climate, were better suited for labor on the southern plantations than the whites. The Caucasian race naturally sought that portion of the country similar in climate and productions to the former home. The system of farming did not require large plantations and cheap labor. The Negro being adapted to a warm climate, could not perform labor so profitable in the northern states.

5. While the colonists were under the control of the mother country, they asked for the rights of English subjects. Having established their independence, they resisted the English for encroachment on their rights as American citizens. The British claimed the right to search American vessels. The colonists were no longer subjects of Great Britain, and resisted as Americans.

7. There have always been two schools of interpreters of the Constitution. The southern portion, led by Jefferson and Calhoun, held that the Constitution was a compact between the states; that the sovereignty of the nation is with the states, and may be dissolved under certain conditions. The northern school, under the leadership of Hamilton, Washington, and Webster, has always held that the sovereignty is lodged with the central government; that the states are subordinate; that individuals owe allegiance first to the general government. Mr. Calhoun thought states had a right to nullify acts of the general government. Judge Story has written the most elaborate and unbiased opinion of the Constitution.

8. Whether Texas should be annexed as a slave state. The establishment of the boundary. The payment of the state debt. The disposition of the public land.

9. The Pan-American Congress, composed of representatives of the three Americas, is now in session at Washington. The object is a commercial union of all the sections.

10. The independent State of Texas, the attempt of the Confederate States and the public effort of California for freedom from Mexican authority, have been the only public attempts to form independent governments within the present limits of the United States. Aaron Burr's treasonable scheme and the Mormon government have been secret attempts for the same purpose.

MISCELLANY.

SOUTHERN INDIANA TEACHERS' ASSOCIATION.

The Southern Indiana Teachers' Association convened at Aurora, March 26. The address of welcome was given by Hon. H. D. McMullen. This was followed by the inaugural address of the President, Supt. A. H. Graham, of Columbus. It was an excellent one, dealing with the practical side of education. He took the ground that the public schools are not doing all they are intended

to do, and that the tendency is to unfit rather than to prepare the pupil for practical life. A revision of the course of study was advised, in which less time should be devoted to Latin, and that other studies, such as book-keeping and short-hand, should be introduced.

THURSDAY MORNING.—Supt. P. P. Stultz, of Jeffersonville, discussed "Development in the Recitation." He said: Self-activity is necessary to development. The environment of the pupil is either helpful or detrimental. The assignment of lessons is an important factor in mind development. The teacher is more often to blame than the pupil for poor lessons. The teacher is the most important factor in mind development. He must know the thing to be developed, its capabilities and possibilities; he must be definite, not vacillating. Antagonism between teacher and pupil prevents mind development. There must be favorable conditions for the preparation of the lesson. All distracting influences must be removed, the pupil made comfortable and supplied with the proper appliances for study. In the recitation the pupil is tested and his true character discovered. He must be aroused, for there is no thought activity where there is no attention. Two ways of securing attention are through interest and will power. To secure the interest of the pupil, the teacher must be cheerful and alert. Much depends on class management, attention being given to seating and position in reciting. Above all, the pupil should be trained to individual thought.

He was followed, on the same subject, by Prof. Vayhinger, of Moore's Hill College, who said: The development of every power is the purpose of the school. Its aim is not to make specialists, but men and women. In physical development, food, exercise and recreation are necessary. The same is required in intellectual growth; truth is its food, the appropriation of truth, its exercise. The chief aim is to secure the most intellectual work of the pupil both in the class and out of it. The teacher must occasion the activity.

The second subject, "Where should Teaching Arithmetic Cease in the School Course?" was then taken up by Supt. Wm. J. Williams, of Franklin.

The skill, accuracy and neatness, as revealed by examination and the recitation, determines when this instruction should cease. There are three possible places where it might cease; namely, primary, intermediate, or the high-school grade. It should not cease in either the first or second, for the study requires a higher grade of ability than is found here. It should be taught at least two terms in the high-school. A review is necessary to grasp the relation of its parts. Here is found the necessary power required in demonstrative reasoning. The work should be practical, and should be a preparation for business life. It is also a preparation for algebra and geometry.

Mrs. Emma Mont. McRae, of Purdue University, took up the subject, "The Backward Boy." The subject should be considered from the stand-point of the home as well as of the school. The parent must realize the condition of the child, and the teacher must have a heartfelt appreciation and sympathy in the work. The child should not be put in competition or in the ordinary school. There must be time for the development of that intellect. There must be intellectual freedom for the children. They must live their own lives. There is no human being but is endowed with some possibilities. The training should be such that all avenues possible may be given opportunity for development. The kindergarten exercises should be used in the beginning, and following this manual training. Above all, the time element is important, and the child should be made to feel that he has within him possibilities.

Supt. W. B. Owen, of Edinburg, followed with a paper on the same subject.

The dullness of the boy may be the fault of environment. The right motives may not have been set before him. He may be lazy, may have no aspirations. It may be the result of stupid routine teaching. There may be confused haste in the recitation. The teacher becomes impatient and seeks words rather than thought. Here the teacher is responsible. The mental constitution of the boy may be weak. Here the teacher should lead him along by easy steps and natural methods. His honest efforts should not be censured but encouraged. In the recitation the dull should be called upon often, but not for the most difficult points. The teacher should love the boy and seek to elevate his tastes.

At the close of this session C. N. Peak, of North Vernon, was elected temporary treasurer in the absence of J. P. Funk, of New Albany.

At 1:30 the pupils of the Aurora schools were assembled to listen to a talk in the Young People's Reading Circle, by Prof. Joseph Carhart, of De Pauw University. This talk was much appreciated by the pupils as well as by the large number of teachers present. This was followed by a story from Mark Twain, by Geo. F. Bass.

The next paper read was on "The Educational Value of Diplomas," by Supt. V. F. Hoffman, of Washington. He said: Many hold that the diploma should be abolished from all schools below the college. Usually it is of little use because of the small value placed upon the high-school. The work has not been practical. The mistake is too often made of turning out pupils with reference to quantity rather than to quality. There should be a uniform course in the high-school. The diploma possesses an educational value if there is a proportional development of all the faculties. The power of self-thinking is developed. It is a mental training and stimulus for him who wins. The hope of securing the diploma is an inducement for the pupil to finish the course. It should be a testimonial of intellectual character and a desire to become an intelligent citizen. It is a reward for hard labor.

The next paper was presented by Geo. F. Bass, of Indianapolis, on "The Superstition of Method." All methods have superstitious followers. The teacher must understand what method is. He must know the thing to be learned, the principles and purposes of instruction. Method is a rational procedure. Compayré's principles are,—first, He must know the special characteristics of each branch he is to teach. Secondly, He must understand the laws of mental evolution at all stages. This may be learned from books and from the children themselves. He must know what studies will develop each faculty, Thirdly, He must know the particular purpose of each grade of instruction. Knowing these he may form his method without danger of superstition. He must supply the re-giving principle. There are two classes of teachers—the quick and the dead. The former will have method. One of the symptoms of superstition is an inordinate desire to know *how* without the *why*. Some are not born to teach and can never learn.

Mrs. Clara L. Olcott, of Utica, followed on the same subject. She said: It is not so much the method as the man. Teachers must be courageous to outgrow and banish superstition. In the recitation there are three factors—1, the teacher; 2, the child; 3, the method. The method may be learned by watching, investigation and thinking. Method is like fire, a good servant but a bad master.

Thursday Evening.—A lecture was given by Prof. Wm. Lowe Bryan, of the State University, on "The Practical Significant Facts of Permanency and Change." The lecture was a very interesting one, and a brief report would do injustice.

FRIDAY MORNING.—The first paper was read by Mrs. Rebecca Rhives, of Greensburg, on "The Bright Side of the Teacher's Life." Education is a public necessity, hence the teacher, pupil, and patrons must comply. The work is of the brightest order. The teacher should have high and noble motives that prompt him to teach. His work results in making better homes, better men and women. This is a source of pleasure. Pleasant relations between teacher and pupils, the approval of the superintendent, the working in harmony with parents, the future good will of the pupils, the consciousness of character-building,—are all sources of true happiness for the teacher.

President E. A. Bryan, of Vincennes University, followed with a paper on the same subject. He said: There are wounds and sighs, difficulties and trials, and yet there is room for a halo of glory around the teacher. Happiness is psychological, not physical. It is not confined by race, kind or condition. There is a relation between happiness and the environment. Happiness is lawful. It is right to seek good for one's self. The life of the teacher passes into the life of the pupil. This is true transmigration. This work must be a source of keenest enjoyment.

The next subject, "Is the Young Man Safe?" was first presented by Supt. J. H. Martin, of Madison. He said: The young man always has been and will be an important factor in the home. His character determines whether he will be a blessing or a blight. What is true of the family, is true of the state and nation. Strong, noble boys indicate future noble citizens, for into their hands will pass the future Church and State. Save the boys and you save the young men. Save the young men and you save a nation. The dangers of the boys are,—first, from evil associations. It is as much the duty of parents to guard them from evil companions as to guard them from disease. It would be better for them to have no associates than to have evil ones. It is the duty of the parents to keep their boys home at night. To this end, home should be made the sweetest and dearest of all places. The second danger is from the influence of bad books and vicious literature. To counteract this evil, a taste for pure literature should be cultivated. The home should be supplied with good books. The third danger arises from the saloon. Two remedies for this are,—1. A prohibitory law. 2. Sentiment to enforce the law. Prohibition should be taken out of politics and made a moral issue. The time to save the young man is when he is a boy, before his habits have become fixed.

Mrs. Armen, of Columbus, followed with a paper on the same subject. The teacher and the pupil must combine to form will power and moral stamina. The country boy must furnish the brain and sinew to carry on affairs. The standard of scholarship must be raised. The loose reins of family government result in wayward boys. Parents are too much engrossed with society and business to care for the children, hence they depend on the teachers to rear them. Nine tenths of the perils arise from the home. Teachers can not be expected to do everything for the child, since he is for so a short time under their direct control.

Edinburg was then selected as the place of the next meeting. "Random Shots" were then given by Messrs. Stevenson, Peak, Bell, and Bryan. Prof. Bryan made three wishes for the teacher,—1. For higher scholarship. 2. For less politics. 3. For more pay.

At 1:30 the Association was delighted with "A Talk on the Merchant of Venice," by Pres. Parsons, of the State Normal. Pres. Jordan, of the State University, was then called upon and responded with a few appropriate remarks.

Messrs. Olcott and Peak and Mrs. Gilchrist, the Committee on Resolutions, reported as follows:

- Resolved*, 1. That this is the best Association we have ever attended.
 2. That we greatly appreciate the music—instrumental and vocal.
 3. That we express our thanks to the good people of Aurora for the royal and hospitable way in which we have been entertained.
 4. That the program has been of unusual interest. That F. D. Churchill be complimented on his excellent executive ability.
 5. That our thanks are due to the Introduction Committee for the social feature of the occasion.
 6. That thanks are due to D. H. Baldwin & Co. for the use of their beautiful piano.

The Committee on Officers reported as follows:

- For President—F. D. Churchill, Aurora.
 For Vice-Presidents—

	{ C. N. Peak, North Vernon, and
	{ Miss Jennie Snyder, Columbus.

 For Secretary—Miss Oma Feagans, Washington.
 For Treasurer—J. P. Funk, New Albany.
 For Executive Committee—W. B. Owen, Edinburg, chairman; Mrs. S. C. Taylor, Madison; R. J. Aley, Vincennes; J. W. Stotts, Mitchell; Miss Kittie Palmer, Franklin.

WHEREAS, The teachers of Indiana as well as the friends of education everywhere have just been called upon to mourn the sad death of the venerable and eminent scientist, Dr. Richard Owen; Therefore,

Resolved, That the Southern Indiana Teachers' Association put upon record its appreciation of his eminent services to the cause of science. Dr. Owen was born in Scotland in 1810, educated in Scotland and Switzerland, served in the United States Army in the Mexican and Civil Wars, engaged in the U. S. Geological Surveys and in several State geological surveys, was President of a Military School in Kentucky, was for eleven years Prof. of Natural Science in the Indiana University, was elected first President of Purdue University, and since his retirement to private life has devoted himself constantly to scientific investigation and writing.

His acquaintance and correspondence with the most celebrated scientists of the world was large. He was a student, scholar, and christian gentleman of the highest type. Of a celebrated family, he was as unassuming as a child. He was a member of this Association, presenting a paper on some branch of science six years ago. He was a member of the most prominent American and foreign associations for the advancement of science, and a constant contributor to papers until his death. We mourn his loss.

“Were a star quenched on high
 For ages would its light
 Still travelling downward from the sky
 Fall on our mortal sight;
 So when a great man dies
 For years beyond our ken
 The light he leaves behind him lies
 Upon the paths of men.”

WHEREAS, It has pleased the Great Teacher of mankind to call to a higher world the veteran teacher, E. P. Cole, of Bloomington; and the able Superintendent, J. K. Walts, of Marion;

Resolved, That in the death of these educators the Southern Indiana Teachers' Association feels an irreparable loss to the cause of education, and that the Association tender to the families and friends of the deceased its heartfelt sympathy.

Resolved, That copies of these resolutions be furnished to the families of the deceased.

ROBT. J. ALLEY,
J. H. MARTIN,
BENJ. VAIL, JR. } *Committee.*

A. H. GRAHAM, *President.*

EDITH SHOCKLEY, *Secretary.*

REPORT OF THE NORTHERN TEACHERS' ASSOCIATION.

The Northern Indiana Superintendents and Teachers' Association held the third annual joint association at Columbia City, April 3, 4, and 5, 1890.

Teachers who had the opportunity of being present on Thursday, April 3, reported a most profitable day spent in visiting the public schools, where Supt. Palmer and his teachers furnished every opportunity to see the work of all departments.

The meeting proper of the Association commenced at 7:30 P. M., April 3. The large room was filled to overflowing. The program for the evening was as follows: Prayer, Rev. H. C. Rockey; Address of Welcome, Thos. R. Marshall; Response, Mrs. Emogene Mowrer, of Warsaw; Address of Retiring President Supt. T. J. Sanders, Warsaw; Inaugural Address, W. C. Palmer, of Columbia City. The address was pointed and well received. The excellent music furnished by the Glee Club was highly appreciated by all present.

FRIDAY, 9:30 A. M.—Supt. W. H. Sims, of Goshen, read a paper on "The Head and the Hand." The paper contained the following thought:

"That men ought to learn to *do* as well as to think is not disputed; that men learn to do by doing is generally accepted; but that men learn to think by doing there are many ready to controvert. That the hand aids the head, yea, that sometimes leads it; that hand culture may and ought to be made a part of every child's education; that hand culture can be introduced in the common school without interrupting the present work; that it will aid in intellectual development by giving added ability to grasp the subjects presented—these are the doctrines of those who advocate the introduction of manual training in the common schools." The purpose of the paper was to prove that these doctrines are well founded—first, because they are psychologically correct; second, because they have stood the practical test.

Discussion: W. A. Bell commended manual training because it not only educated the child in exact thinking, but also in the exact working out of the thought. Dr. Hailman distinguished between manual training and industrial training, and said "hand training has come to stay because it is the thing."

Miss Grace Rowley, of Elkhart, read a paper on "Science in Intermediate and Primary Grades." Following is the thought:

"The natural sciences are powerful forces in developing those habits which will train the American child into a seeing, thinking, self-reliant citizen. Curiosity—the birthright of the child—should be developed in the right direction, not repressed. Then that very spirit, which at the age of six turned pocket-books into museums and the tongue into an interrogation point, would be active in the high-school and the college, where now so often the instructor's first and mightiest effort is to arouse the student from lethargy and indifference to the study of science. Our childhood was fed on fairy stories and most of us enjoyed it."

may feed our pupils on true stories that open to them a new world of unsuspected and inexhaustible pleasure, and all will enjoy it. You don't believe it? Try it!"

Supt. P. D. Creager, of Kendallville, not being present, his paper, "Science in the Grammar Grades," was read by Mrs. Jennie Goodwin, of the Kendallville high-school. "The two main reasons for the study of elementary science in the Grammar School are—viz: (1) as a means of mind discipline for those who do not enter the high-school; (2) as a preparation for advanced study for those who enter the high-school. The first of these two reasons is the more important on account of its educational, ethical, and practical value. Botany, Zoölogy, Chemistry, and Physics are best suited for elementary work. They must be taught objectively, energetically, with originality, and skillfully. When so taught science will become an important factor of education in the grammar school grade."

Both of the above named science papers were included in one discussion, led by Howard L. Wilson, Rensselaer high-school.

FRIDAY P. M.—Supt. W. C. Belman, of Hammond, read a paper on "How to Secure Teaching of Subjects instead of Text-Books." "Some of the causes that produce book teaching are: (1) Teachers lack knowledge outside of their books; (2) Superintendents are to blame who do not require professional study of their teachers. Do not throw away the text-book. Go from the book to nature. Let teachers be original, and do not quell the spirit of originality in pupils."

Discussion: Supt. Chase, of Plymouth, said the teaching of subjects instead of text-books is successfully done in his schools. He does not allow the text-book used at all in many subjects.

Miss E. A. Hill, teacher of Drawing in the South Bend schools, read a paper on "Industrial Drawing in the Public Schools," which was excellent.

FRIDAY EVENING.—A large audience assembled to hear Supt. Geo. Howland, of the Chicago schools, on "The Recitation." The lecture was filled with practical thoughts that the teacher can carry out in her daily work and make her school better thereby. The tenderness and gentleness, which Mr. Howland showed in voice and thought when he spoke of the interests of the child, awakened the listening teacher to a deeper sense of love, of duty, and of responsibility in the work in the recitation-room of the public graded school.

SATURDAY, A. M.—Supt. Scull, of Rochester, read a paper on "Superintendent's Relations to Schools in his Charge." The paper commended the County Supt. system of our state. Mr. Scull further said: "The character in the educational system of our state whose duties are most varied is the superintendent of the schools of a city of 3,000 to 10,000 inhabitants. He has to establish and maintain proper relations with his school board. He must teach his board. He has a right to a place with them as a member of the board of education. The superintendent ought to be a weight in the selection of teachers. He must trust his board. The superintendent's relation to the teachers is, 'Like superintendent, like teachers.' He must be a practical teacher. He is the impulse of the school. He must be a student, a thinker, up to the educational thought of the day. The greatest power he can exert with his teachers is to incite them to higher thinking. He must be a patriot, and as he looks upon the children of to-day, he remembers that to them will be confided the nation's destinies tomorrow. If the superintendent does his duty to himself, his board, his teach-

ers, his pupils, and to the community at large, he will demonstrate the right of his office to exist, and at last, if not at all times, should receive this commendation: 'He hath merited well of the Republic.'

County Supt. E. G. Machan, of La Grange, read a paper entitled: "Apportionment of School Revenues." Following is the outline:

1. Purpose of the Constitution. The wealth of the state is pledged to the education of the children of the state. This wealth is distributed on the ratio of the children to educate, without regard to the sources from which it comes.

2. The present basis not an equitable one. The different conditions in city and country life make it unjust. Cities are the great centres of wealth, hence should expect to pay more than they receive in return. The present basis is open to fraud. Fraudulent returns are confined largely to the cities, where there is the least cause for it. These frauds are not of recent origin but have been perpetrated upon the unsuspecting country people for years past.

As a remedy for the evil the speaker recommended: (1) A compulsory education law, with severe penalties attached for fraudulent enumerations. (2) If this can not be obtained, that the actual school attendance for the year be made the basis of apportionment.

Supt. R. I. Hamilton, of Huntington, discussed the paper, presenting the following points: "The present basis more nearly just than any other practicable one. Serious frauds impossible with proper inspection on the part of county and state superintendents. An enrollment or attendance basis more open to fraud than the enumeration basis. The cities already pay into the state fund annually under the state levy of 16 cents, a much larger amount than they receive back. The cities have sore need of all the money they pay into the school fund, without suffering the present annual depletion, much less the heavier one contemplated by a change in the basis of apportionment. For various reasons the percentage of enumeration on population in cities should be and is higher than in the country. The charge of systematic and wide-spread fraud in city enumerations is not supported by the facts. School terms in cities longer than in rural communities chiefly because close gradation permits the city teacher to have charge of two or three times as many pupils as the country teacher."

The following resolutions were adopted:

WHEREAS, Since the last meeting of this Association, two of its worthy members, Prof. J. K. Walts, Supt. public schools, Marion, Ind., and Prof. Ambrose Blunt, Supt. public schools, Ligonier, Ind., the former one of the direct projectors of this Association, and the other one of its early members, have been called from labor to reward;

Resolved, 1. That in their death this Association has lost two valuable and highly respected members, and the cause of education two earnest, faithful and conscientious advocates.

2. That we tender our condolence to their bereaved families, to the communities in which they labored, and to the schools they so successfully conducted.

3. That these resolutions be spread upon the records of this Association and copies of the same be sent to their respective families and school boards.

Respectfully submitted,

JOHN S. IRWIN,
JAS. F. SCULL,
D. W. THOMAS. } *Committee.*

The Teachers and Superintendents of the public schools of Northern Indiana in Association assembled, hereby express their opinions as follows:

1. We believe a system of public schools to be indispensable to the perpetuity of a free popular government; we believe the system now in existence while confessedly imperfect, in effect secures the essential results which should

obtained by public education; we affirm our devotion to the public school system; and we urge upon all teachers and other friends of the public schools, uninfluenced by partisan politics, to support in every honorable way all proposed legislation tending to strengthen and improve our schools, and to watch with jealous eye any attempted legislation which shall be inimical to their best interests.

2. We respectfully but earnestly petition the Legislature to make no change in the school law from the present method of distribution of the school revenue, other than the dropping from the enumeration list the names of all persons over eighteen years of age.

3. It having been currently reported that the school board of the City of Logansport have issued an order practically forbidding the teachers of their city to become or remain subscribers to the Indiana School Journal, we beg leave to say, in the most respectful manner, that we can view such reported action in no other light than an interference on the part of a school board with the professional liberty of teachers, which we resent as an insult to the profession and as a blot upon the fair name of the people of our state, whose intelligence and sense of fairness such action most clearly would misrepresent.

4. Whereas, the officers of this Association during the past year have spared no pains in their effort to make this meeting a success, and that the President of this Association has, during these sessions, so earnestly and energetically performed his duty, this Association extends to these officers its sincere thanks.

5. We tender to the members of the Glee Club our thanks for the excellent music rendered.

6. We extend our hearty thanks to the good people of Columbia City for the very hospitable manner in which we have been entertained.

The following officers were elected for the coming year:

President—R. I. Hamilton, Huntington.

Vice-Presidents—C. M. Merica, Auburn; Miss Adelaide Baylor, Wabash; Miss Anna V. La Rose, Logansport; R. A. Chase, Plymouth; W. H. Hershey, Delphi.

Secretary—Mrs. Emogene Mowrer, Warsaw.

Treasurer—Ella E. Kirtland, Huntington.

Railroad Secretary—Oliver Kline, Huntington.

Asst. R. R. Secretary—R. F. Hight, Huntington.

Executive Committee—J. F. Scull, Rochester; W. N. Hailman, La Porte; S. Cox, Kokomo; Miss Grace Rowley, Elkhart; B. F. Moore, Monticello; D. Creager, Kendallville.

The Association will meet at Huntington next year, where care will be taken to make visitors welcome and the meeting a profitable one.

SECRETARY.

FOREIGN EDUCATIONAL NEWS.

FINLAND exhibited at the Paris Exposition the work of thirty schools, mostly of the girls. That of the girls is done with worsted, cotton, and silk. The greatest interest was awakened by the work of the boys. Finland is proud of being the first country in Europe that made work in wood and iron in school obligatory. Finland's great patriot, Uno Cygnaeus, the originator of handicraft, adapted the system of manual training to the customs of his country. A Finnish farmer is also a good artisan. A forge is rarely wanted on his farm. He makes his own knife, the well-known knife with curved blade, which hangs

from the belt of every Finlander suspended by a brass chain. He etches ornaments, emblems, and precepts on the blade, for the Finlander likes to be serious; he speaks in proverbs like Sancho Panza. The boys in school begin to work with wood and iron quite early. These methodical exercises occupy six hours a week of the boys' time. Five hundred different objects made by the boys were on exhibition.

NORWAY.—From the catalogue of the University of Christiania it is seen that about sixty-three courses of lectures are given to a thousand students, namely six courses in theology, seven in law, eleven in medicine, twenty in history and philosophy, and nineteen in mathematics and natural sciences. The library of the university contains 270,000 volumes and 1,400 manuscripts. Books most read are works on history and literature; foreign literature is exceptionally well represented.

DENMARK.—A point of attraction was the exhibition of a "technical school for girls," founded fourteen years ago in Copenhagen. Its corps of teachers consisted of a director, an architect, a sculptor, and two painters. In the true sense of the word it is a school of decorative art. The exhibition comprised many large drawings after antique models and from life, done with the utmost skill. Besides these there were samples of wood carving, gravures on metal, etching, china-painting, and painting on textures.

JAPAN.—In the University at Tokio there are eight German professors, three of which lecture in German. Students entering the university must have gone through a four years' course in German.

—It will not take long and Christianity will be made the state-religion. The Pope has just raised Japan to a See of the Church, and the efforts of Roman Catholic and Protestant missionaries are very successful. The chief agitator is Professor Toyama. He is very active in the establishment of Christian secondary schools and higher schools for girls. Through their influence he hopes to introduce christianity into the families. The Protestant christians in Japan are estimated to number 20,000.

ITALY.—*Amico de Casa* (The House-Friend) publishes the following comparison based upon official statistics: In London there is 1 illegitimate child to 25 legitimate ones; in Paris there is 1 illegitimate to every 2 legitimate children; likewise in Brussels. In Vienna the number of illegitimate children is a little greater than the number of legitimate ones. But in Rome there are 8 illegitimate to every 3 legitimate children. The proportion of cases of murder, the paper says, is similar: In Prussia there is 1 murderer among 100,000 inhabitants; in Spain 1 among 4113 persons; and in Rome 1 among 750 persons. If these statements had not come from Italy, we should have hesitated to reproduce them.

GERMANY.—The attendance in German universities has nearly doubled in ten years. While during 1879 the number of students was 17,631, it rose in 1888 to 34,188. The number of inhabitants increased during the same period from 40,492,000 to 48,056,000. While ten years ago there was reason to speak of a want of persons aiming at superior education, at present there seems to

a superfluity. All the professions are suffering from too great a supply of candidates, so that already the graduates of the philosophic course in the university accept positions in primary schools.

RUSSIA.—The University of Dorpat (in the Baltic Provinces, which are chiefly inhabited by Germans) has been Russified by excluding the German language as the medium of instruction. The Lutheran theological faculty, it is contemplated, will be changed to a private seminary and moved to another city.

Editor Indiana School Journal:

DEAR SIR: Would it not be a wise movement to provide for a "Trustees' Section" at the next meeting of the Indiana State Teachers' Association? There were *four* of us at the meeting at Columbia City. There are many important questions which could be discussed. It would be well for the schools if the trustees in some cases could become infected with the enthusiasm of the Association. Would not State Supt. La Follette meet with some of us for consultation at that time? A few years ago one township trustee came in with his twenty-three teachers—eighteen of them from country districts.

I merely make the above suggestion for "the good of the order."

Truly yours,

A BACK NUMBER.

KOSCIUSKO Co., April 10, '90.

DE PAUW NORMAL SCHOOL.—The writer recently spent a day in this school and was much pleased with what he saw and heard. The school numbers more than one hundred, which is double the number of any previous year. The work is purely professional and of a high grade. There is no "method" department, as it is the theory of the school that *method* is in the nature of the subject and the mind, and must be taught with the subject. The principal work of the school begins where the work of many other schools ends. When a person knows all the grammar usually taught, he is then ready to begin to *sub-soil* with Prof. Tompkins. When a person knows the "facts" of history he is then ready to begin with Prof. Mace the study of principles, cause and effect, whole and part, relation, etc.. The "general method" class is compelled to do some profound thinking.

BUTLER UNIVERSITY IN LUCK.—Hon. Addison F. Armstrong, of Kokomo, has given to Butler University \$20,000 with which to endow a chair of Germanic languages. The gift was made on condition that he be allowed to nominate the professor to fill the chair. The conditions were cheerfully accepted, and Mr. Thos. C. Howe is the favored appointee. Mr. Howe is a graduate of Butler and is at present a tutor in the institution. He will spend next year in Europe making special preparation for his new position.

Others of Butler's numerous friends should follow Mr. Armstrong's noble example.

HUNTINGTON is planning to erect a fine school building the coming summer. Supt. R. I. Hamilton is doing good work. He and his 25 teachers attended the recent Northern Association.

W. F. L. SANDERS, Supt. of the Connersville schools, will open a six-week normal, June 9.

J. E. WILEY, C. M. Carpenter, and U. H. Smith will open a six-week normal at Bloomington, July 7.

THE new catalogue of Indiana University shows 329 students in the college classes, with 20 resident graduates. The senior class numbers 47. President Jordan's European party is nearly full; only 5 vacancies remain.

BLUFFTON has a new 6-room high-school building, costing \$12,000. It employs 14 teachers besides the superintendent. P. A. Allen has been Supt. for nine years. He and *all* his teachers attended the Columbia City meeting *Enterprise*.

HANOVER COLLEGE has a new observatory, substantially built and fully equipped. The telescope is a seven-and-a-half inch equatorial, and of the best make. Its equipments are first-class and complete. The building is also provided with astronomical transits, sextants, spectroscope, etc. Hanover is to be congratulated.

THE BRIMFIELD schools closed April 18. The afternoon of that day was devoted to the planting of trees on the school ground. The attendance during the year was good. The principal's department turned out four licensed teachers and a number of common school graduates. This speaks for the work done. Elton Broughton is the principal.

WARSAW stands at the head in the way of conveniences for school work. Its water-closets, its wash-rooms, its carpets, its library, its supplementary reading for the different grades, its reading-room, its pictures—all attest the efficiency of Supt. Sanders and his teachers, (they *all* attended the Northern Association,) the liberality of the school board, and the appreciation of the people.

SIX MEMBERS of the faculty of the State University will open a summer school in Bloomington June 23, for the study of the higher branches. The subjects to be taught are literature, mathematics, astronomy and surveying, chemistry, biology, Latin, etc. This school should be largely patronized. For particulars see advertisement on another page, or write to the director, Prof. R. L. Green.

FRANKFORT lost by fire, April 21, its Third Ward school building. It was almost new and one of the best arranged houses in the state. The principal of the school, J. W. Hamilton, first discovered the fire, which began in the basement, and by his coolness and the discreet support of his brave teachers emptied the building of its 400 pupils without a panic and without injury to any one.

BAY VIEW.—Dr. E. E. White, well known to most Indiana teachers, says of Bay View: "I do not know a more delightful place for a teacher to spend a few weeks in search of health and wisdom than Bay View, Mich., when the Assembly and Summer Schools are in session. Nature and Supt. Hall have united their best endeavors to make this Northern Chautauqua the great resort for rest, recreation and inspiration." For further information see another page.

PERSONAL.

E. W. McDaniel is principal of school No. 2 in Shelbyville.

Walter Irwin is still in charge of the schools at North Manchester.

M. J. Mallery is completing another successful year at Crown Point.

A. J. Johnson is making his first year at La Grange a successful one.

Lewis H. Jones has been unanimously re-elected superintendent of the Indianapolis schools.

Marcus Pearson, of Marion, has been chosen principal of White's Institute, a school for Indian children, near Wabash.

J. G. Scott has just closed the public schools of Charlestown for the season, in good form—graduating six from the high-school.

W. C. Palmer has been connected with the Columbia City schools for eight years, and for the last five years has been superintendent.

W. H. Sims, Supt. of the Goshen schools, has had his work approved by a re-election for *three years*. Such a school board deserves to be honored.

Pres. D. S. Jordan, of the State University, will take another party to Europe the coming summer. He has room for a few more if they will apply at once.

Flavius J. Beck, of Hartsville, will graduate from the Kentucky Medical College in June, and change professions. He has been a very successful teacher.

R. A. Chase is now serving his *twentieth* year as Supt. of the Plymouth schools, and he has just been elected for *two years* more. His schools are well worth visiting.

J. W. Hamilton, principal of the Third Ward school building at Frankfort, has been elected Supt. at Monticello, to succeed B. F. Moore, who will be Supt. at Frankfort next year.

Miss Anna V. La Rose is doing well as Supt. of the Logansport schools. She attended the Northern Association at Columbia City and made a favorable impression upon all she met.

Melvin A. Brannon, of Crown Point, who is now finishing a post-graduate course in science at Wabash College, has been elected teacher in the Ft. Wayne high-school, to take the place of Dr. Dryer, resigned.

Geo. M. Teeter, principal of the Pennville schools, has completed his year's work with great success. He will open the third session of the Pennville Normal, May 27. Last year he enrolled nearly 100 students.

C. H. Wood, who has served two years as principal of the Winchester high-school, and four years as superintendent of the public schools of the same place, has recently been unanimously re-elected for another year.

Dr. Chas. R. Dryer, who has been teacher of natural-science in the Ft. Wayne high-school since 1877, has resigned to accept a position in the experimental department of the Ft. Wayne Electrical Co. Dr. Dryer is one of the leading natural science men of the state, and is an excellent instructor. His place will be hard to fill.

J. H. Martin, Supt. at Madison, has been solicited to become a candidate for the nomination of State Superintendent, but up to date has not given his consent. Dr. Martin is one of Indiana's ablest superintendents, and would make a strong candidate.

J. A. Carnegie, for several years past principal of the Madison high-school, has been elected Superintendent of the Columbus schools, to take the place of A. H. Graham, resigned—change to take place at the end of the present school year. Mr. Carnegie is a graduate of Hanover College, is a good instructor, a courteous gentleman, and will make a first-class superintendent. The board made a good choice.

Dr. Jno. S. Irwin, Supt. of the Ft. Wayne schools, has been urged by many of his friends to ask for the nomination for State Superintendent, but so far he has declined. Other candidates from the same place, for a "bigger" office seem to be in the way. But few men in the state are so well qualified to fill this high office as is the Doctor, and his friends regret exceedingly that the force of circumstances rules him out of the race.

W. E. Sheldon, of Boston, who is editor of *The American Teacher*, and associate editor of the *New England Journal of Education*, recently paid the Journal sanctum a very pleasant visit. He was on his way to Terre Haute as one of the appointed visitors to inspect the work of the State Normal School. Mr. Sheldon is recognized as one of the leading educators of the country and as one of the devoted supporters of the National Educational Association. He is always a *pusher*.

John W. Barnes is a candidate for the nomination of State Superintendent at the hands of the Republicans. He is 43 years of age, is a graduate from the classical course of Asbury, now De Pauw University. He joined the army at the age of 16, and so has had a military education. He has been Supt. of the Howard county schools since 1878—this makes him one of the oldest Supts. in experience in the state. He is a recognized leader among the Supts. and is capable of filling creditably any educational position that may be entrusted to him.

James H. Henry, Supt. of Morgan county, has decided to be a candidate before the Republican State Convention for the nomination of State Superintendent. Mr. Henry is 29 years old, graduated from the Martinsville high-school, has taught 7 years in different grades of schools, attended the State Normal but did not graduate, and has been Supt. of his county since 1885. He holds a state life license and is one of the most enterprising of the county Supts. He helped to organize the County and Village Section of the State Association in 1886, and has served on its executive committee ever since. Mr. Henry is a growing man in the educational field.

RUDIMENTARY PSYCHOLOGY: By G. M. Steele. Boston: Leach, Shewell & Sanborn.

The author has given in this little volume the main facts of psychology. The more abstruse parts have been omitted. Technical terms have been avoided as far as practicable, and simple language used whenever it did not involve too much circumlocution. The work is designed for one-term study in high-schools, academies, and colleges. The print and style of the work are good.

BUSINESS NOTICES.

Don't fail to read the advertisement on Arbor Day.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Jewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

For a Summer School of Oratory see the advertisement for Ann Arbor, Michigan, April Journal.

TEACHERS:—Vacancies for Fall, paying from \$30 to \$200 per month. Address with stamp. W. E. CAVERS, Georgetown, Texas. 5-3t

A SUMMER SCHOOL OF CHEMISTRY IN THE UNIVERSITY OF MICHIGAN.—July 7 to August 15. Primarily for teachers. Address Mr. W. F. Edwards, Ann Arbor, Michigan. 5-2t

D. H. BALDWIN & CO., of Indianapolis, keep everything in the line of musical instruments. It is the largest establishment of the kind in the state, and any one wishing anything in their line will do well to write for terms or call and see them. 5-7

NATIONAL BUREAU OF EDUCATION.—Colleges, Schools, and families furnished with thoroughly qualified Presidents, Principals, Teachers, Tutors, Vernerses. Send for circulars. Miss Eliza Crosthwait, 54 Cole Building, Nashville, Tennessee. 5-6t

For holding on there seems to be no book like THE TEACHER'S AND STUDENT'S LIBRARY, published by T. S. Denison, of Chicago. It has just been revised to date, and reduced in price to \$2.50. We know of no book where the teacher can obtain so much for the money. 5-1t

EMPLOYMENT FOR TEACHERS.—The U. S. Mutual Accident Association of N. Y. offers good insurance at exceedingly low rates. A good active agent is wanted in every community. Such an agent can earn liberal wages. For full particulars address, D. F. FLEENER, Gen. Ag't, 31 Virginia Ave., Indianapolis, Ind. 5-4t

Look here, Friend, Are you Sick?—Do you suffer from Dyspepsia, Indigestion, Sour Stomach, Liver Complaint, Nervousness, Lost Appetite, Biliousness, Exhaustion or Tired Feeling, Pains in Chest or Lungs, Dry Cough, Night sweats or any form of Consumption? If so, send to Prof. Hart, 88 Warren St., New York, who will send you free, by mail, a bottle of *Flaraplexion*, which is a sure cure. Send to-day. 5-5t

M. A. BULLOCK, for many years a teacher, is now connected with a mercantile agency in this city, and is in a position to furnish teachers profitable employment throughout the year, or during their vacation. Mr. B. has placed quite a number of ex-teachers in good paying positions during the past year. We suggest that gentlemen who think of leaving the profession for more profitable work, correspond with him. Office No. 14 East Washington Street, City. 5-1t

If you are contemplating a trip to any point in Missouri, Kansas, Texas, California, or any Western State, call on the nearest agent of the Big Four Route (C. C. C. & St. Ry.), and obtain full information as to rates, route, and all other matters of interest. The solid vestibule trains of the Big Four Route, making close connections in Union Depots, offer accommodations and facilities excelled by no other line. The sleeping-car service of the Big Four Route is unsurpassed. 5-7

A GREAT MANY teachers are also farmers. As such they are interested in raising stock. It is well known that it costs more to raise a "scrub" than to raise a "thorough-bred," and then it is not worth nearly as much when raised. It costs a little more to make the right kind of a start, but it *pays* in the end. For information concerning superior varieties of hogs, chickens, wheat, oats, etc., write to James Riley, of Forttown, Ind. He is a man who can be relied upon, and what he promises he will do. 5-7

TERRACED BAY VIEW.

THE FAIREST OF SUMMER RESORTS.

A few years ago while wondering where to spend my summer vacation, some one suggested Bay View, near Petoskey, in Northern Michigan. I had heard its praises from many tourists and quickly decided to go. Every year since I have been in the July throng bound for that favored resort. Then, Bay View was small, now it is large, popular and famous. If at times I appear enthusiastic, charge it to the marvelously exhilarating climate and surpassing beauty of the fairest of summer cities. It looks out from amphitheatre terraced groves encircling the head of Little Traverse Bay out of Lake Michigan. A more beautiful bay can not be found in all the world. Dotted with pretty summer resorts plainly visible four miles away through that remarkably pure and clear air, from this vantage point travelers often compare it to the Bay of Naples. It is left to the sunsets to complete the picture. Go where you will, lovelier sunsets can not be found. Every pleasant evening the people go down to the beach or may be seen gathering in groups along the terraces to gaze on the splendid scene as Old Sol sinks below the horizon. At Bay View they have learned how to profitably use vacations. Instead of killing time, rest and recreation are varied with popular schools and entertainments. The place has become a favorite educational center, and its

SUMMER UNIVERSITY AND ASSEMBLY

now rank among the largest and best in this country. The COLLEGE OF LIBERAL ARTS under Prof. David Howell and a select faculty from the leading colleges and universities, has established a reputation for high grade work, and there teachers may see illustrated by instructors, from primary and kindergarten normal departments up to university classes in all branches, the methods and enthusiasm which has made their own work successful. At Bay View one can find schools in almost every department of study, and it is surprising how much can be accomplished in a brief period.

THE BIBLE SCHOOL

is especially rich in privileges and attracting wide attention with such conspicuous scholars at the head of the departments as Dr. Jos. T. Duryea, Prof. Frank K. Sanders, of Yale, Prof. Fred. Wm. Phelps, formerly at the University of Kansas, and in the Sunday School normal work, where Mr. Horace Hitchcock of Detroit and Mrs. M. G. Kennedy of Philadelphia are teachers. Of other departments

THE SCHOOL OF MUSIC

is very superior. Among its instructors are Prof. C. C. Case of Cleveland for chorus and voice, while for piano work Prof. C. B. Cady and Miss Wood from the Chicago Conservatory of Music are teachers. The musical lectures and recitals which made the department so popular two years ago will be a feature this year.

Bay View has secured another strong person in Mrs. Edna Chaffee Noble, who stands in the front rank of the profession, to take charge of the SCHOOL OF ELOCUTION. Hereafter she will join her famous Detroit Training School thereto in summer.

A department always in great demand is the SCHOOL OF ART, in which Prof. Henry A. Mills, Dean of the Depauw University Art School, and an artist of splendid abilities, is director and teacher. Wood Carving, China and Tapestry Painting are also taught by successful artists.

THE ASSEMBLY.

What visions of delight are awakened at the mention of the Assembly, which with its varied programs supplements the University classes. Among the names which will make this year of universal attractiveness are, Rev. Drs. F. W. Gunsaulus, O. H. Tiffany, J. T. Duryea, Chaplain McCabe, Rev. Russell H. Conwell, Mrs. Mary A. Livermore, Marion Harland, Mrs. Margaret E. Sangster, Mr. Geo. W. Cable, Prof. J. C. Freeman, and Mr. Alexander Black. The Fiske Jubilee Singers, Otsego Band, and the Ben-Hur Tableaux are also announced.

Every day at Bay View is filled with rare privileges and pleasure. No one who has

been there can ever forget that long, delightful holiday. Bay View is most admirably situated for summer recreation and study. Its bracing climate, and a temperature 15 degrees lower than at Cleveland and Chicago, enable any one to spend a few hours daily in class work without any unfavorable results whatever to health and strength. As might be expected, hundreds of ambitious teachers and students are attracted there by the splendid opportunities to fit themselves for larger success. Fellow-teachers, if you have not decided where to go next summer, send to Mr. John M. Hall, Flint, Mich., for the *Assembly Herald*, telling all about Bay View and how to go there. The cost of a trip is within the means of almost every teacher, for low priced excursion tickets will be everywhere on sale, and board costs only \$5 to \$6 a week. H. M. J.

CATARRH CURED.—A clergyman, after years of suffering from that loathsome disease Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren St., New York, will receive the recipe free. 5-5t

NORTH MANCHESTER COLLEGE—COURSES: Teachers', Business, Literary, Music, Art, Short-Hand, Type-Writing, Collegiate. 3-3t

TEACHERS IF YOU WANT A MEDAL for your school, send for my Illustrated Catalogue and Price-List. D. J. RAWISZER, Pearl River, New York. 3-4t

TEACHERS WANTED!—We have on our books, *now*, hundreds of vacancies. They are for Professors in Colleges, at salaries of \$500 to \$3000. For Superintendents and Principals, at salaries of \$450 to \$2500. For High School Principals and Assistants, at salaries of \$400 to \$1500. For Grade Teachers, at salaries of \$30 per month to \$85 per month. For Training Teachers in Normals, at salaries of \$600 to \$1200. For Specialists in Music, Art, Modern Languages, Elocution, and Commercial Branches, at salaries of \$350 to \$1200. *Now* is the time to send for blank and manual. Our vacancies are from employers, and not "hearsay."

Address, SCHOOL AND COLLEGE BUREAU,
C. J. ALBERT, Manager, Elmhurst, Ill. 4-tf

CINCINNATI, WABASH AND MICHIGAN RAILWAY—The Elkhart Line.—Three Through Trains Daily (except Sunday), between Indianapolis and Benton Harbor. Direct connection at Benton Harbor for Grand Rapids, Muskegon, and all Michigan points, and for Chicago via the Detroit & Cleveland and Graham & Morton boat lines. About May 20th we will put on a line of new Combination Sleeping and Chair Cars on night trains between Indianapolis and Grand Rapids; also a line of Chair Cars on day trains. For time of trains, rates, etc., see any ticket agent, or J. B. HARTER, General Agent,

E. H. BECKLEY, G. P. & T. A., Spencer House, opposite Union Depot,
Elkhart, Ind. 2-tf Indianapolis, Ind.

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page. 1-tf

PRIZE OF \$100.00

Is offered to Teachers by the

Chicago, St. Paul & Kansas City Railway.

For copy of circular apply to

W. R. BUSENBARK,

4-3t

Gen. Pass and Ticket Agent, Chicago, Ill.

THE OPINIONS OF Prominent Boards of Education, Leading Superintendents, and Principals

W. B. Parker, State High School, Madison, Wis.—A degree of familiarity with the work of your agency, obtained through several years, enables me to say that in all respects your work as supplying teachers has seemed to be an efficient, prompt, and pertinent agency for schools and for teachers. (Jan. 21, 1909.)

E. H. Ballard, Dir. Chicago Manual Training School.—From my knowledge of your operations, I think you are doing a valuable and a perfectly honorable work in adjusting the supply and demand in the teaching fraternity. (Jan. 21, 1909.)

F. G. Jones, From School Board, Oregon, (Billeret.)—At the commencement of the present school year, our Board selected for our High School department a teacher recommended by your Association. He has proved to be a very efficient teacher. (Feb. 2, 1909.)

E. C. Parker, Principal High School, Princeton, Ill.—Mr. G. A. Heitinger, whom we got through you last year, has proved exceedingly acceptable. We shall retain him with great pleasure, if his views are within our appropriation. (Feb. 2, 1909.)

J. V. Tolson, Secretary Board of Education, Hartford, Conn.—Most heartily commend the Teachers' Co-operative Association in school boards wanting good teachers. (Feb. 2, 1909.)

Geo. F. Bels, From School Board, Oakley City, Mo.—On a certain Wednesday evening, not long since, we were privileged to see for a Public School Board the following teachers who arrived and on the next Monday began their work. The first was excellent in all respects, and it gives me great pleasure to testify to your agency as the best in the business. It is a pleasure in adding to me a teacher. (Feb. 2, 1909.)

Chas. B. Buntin, Super. School, Danvers, Mass.—Our Board of Education being in urgent need of a teacher, I wrote to all the Teachers' Agencies of which I could hear. I selected the Teachers' Co-operative Association as the best person for the place. The results have confirmed my belief and I have been able to do so in getting her recommendation. Should we need another teacher at some future time, it will be necessary to consult only our agency. (June 21, 1909.)

J. A. Trow, Very Near Normal School, Madison, Wis.—I am a member of the Teachers' Co-operative Association, secured through your agency last August. A successful teacher, both as to character and discipline, and my congratulations. Desires to be secured in service. (Feb. 2, 1909.)

E. E. Cooper, Secy of School Board, Hartford, Conn.—Mr. Frank Davis, whom we employed through you, is as pleased to say is giving the best of satisfaction. (Jan. 2, 1909.)

G. C. Gault, Marshall, Ark.—Permit me to say that the two persons selected from those applying through your Association for positions in our High School, were both of the highest type of character and of excellent ability. (Feb. 2, 1909.)

E. B. Eastman, Supt. of Schools, Waterville, Me.—One of the best teachers I have ever had under my supervision was secured through your Agency. As a means of information in regard to teachers, it is well worth the smallest fee to any teacher to become a member of your bureau, besides all the assistance rendered if a change in position or promotion is desired.

C. B. Smith, Supt. Schools, Guilford, N. Y.—I want you for your kindness in recommending me to you, and to me to speak in terms of praise of the general high character of your candidates. (June 2, 1909.)

E. B. Brown, Clerk School Board, Highland Park, Chicago, Ill.—On behalf of our School Board at Highland Park, I wish to say that we are very much under your obligations to you for your assistance in procuring a teacher for the school. The teachers whom we secured under your agency have proved themselves deserving of all you said of them, and are eminently satisfactory. (Jan. 25, 1909.)

J. A. Ballinger, Supt. Schools, Port Smith, Arkansas.—A good cause should be popularized. That your Agency has proved a great boon to teachers and school officers is a fact known and fully appreciated by those who have had immediate with you. The prompt business methods used, the best discrimination exercised in making selections, and what, the able, courteous treatment your correspondence receives are convincing proofs of the great services you are rendering to the cause of education. Knowing as I do, the efficiency of your Agency, I deem it my duty as a professional man to recommend it to teachers and school officers. (Jan. 21 '09.)

W. W. Janssen, Supt. Public Schools, Salem, Mass.—I am a member of the Teachers' Co-operative Association, secured through your Agency last August. A successful teacher, both as to character and discipline, and my congratulations. Desires to be secured in service. (Feb. 2, 1909.)

W. W. Stuart, Supt. Public Schools, Oshkosh, Wis.—I am pleased to state that I have secured several good teachers through your Agency—never a poor one. I have always found you prompt and reliable. (Feb. 2, 1909.)

W. F. Shattuck, President of Minnesota College, St. Paul, Minn.—Minnesota College has found the Teachers' Co-operative Association of Chicago a convenient medium through which to secure valuable teachers in regard to efficient teachers. (April 2, 1909.)

Alma G. White, Pres. Lewis College, Republic, Mo.—Several times I have had occasion to use your Agency in filling vacancies in Academy and College, and have found your representations exact, your selections efficient, and your methods satisfactory. (Dec. 28, 1908.)

F. A. Allen, President Board of Education, Madison, Wis.—I take pleasure in saying that through your Agency we have secured several very good teachers, and I am not able to say any who failed to meet your representation. (Feb. 2, 1909.)

J. B. Shattuck, Supt. of Schools, St. Mary's, G. D. Elm—Last spring I requested you to recommend a suitable person for the superintendency of our city schools, and out of a list of four whom you recommended, I selected the first, and at this writing it looks as if we made a mistake. (Feb. 2, 1909.)

J. B. Shattuck, Supt. of Schools, St. Mary's, G. D. Elm—Last spring I requested you to recommend a suitable person for the superintendency of our city schools, and out of a list of four whom you recommended, I selected the first, and at this writing it looks as if we made a mistake. (Feb. 2, 1909.)

G. C. Papp, Pres. Board of Education, South West—I take pleasure in saying that through your Agency we have secured several very good teachers, and I am not able to say any who failed to meet your representation. (Feb. 2, 1909.)

School Boards needing a Superintendent, High School Principal, Special Teacher, or Grade Teachers, are invited to make their wants known early. Correspondence solicited, and confidential. We shall also be glad to hear from all teachers contemplating a change.

Address. **TEACHERS' CO-OPERATIVE ASSOCIATION, 70-72 DEARBORN STREET, CHICAGO.**

WANTED—Superintendent. Salary \$2,000. We have been asked by the School Board in a neighboring city to recommend a man for the above position. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—A Music teacher for a State Normal School. Good salary. Full term. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—Assistant Principal for Academy. Salary \$1,000 to \$1,200. Congregationalist or Presbyterian. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

SALARY \$1,800—A Pennsylvania School Board has written us for a superintendent for Fall at above salary. A college man wanted. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

PRINCIPALSHIP in Nebraska. \$1,000. A Nebraska School Board has written us to find them a principal. Salary \$1,000. Further particulars sent on application to Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—\$1,600. A leading University has asked us to recommend a man for Latin Professorship. Must have been and be conversant with the methods of European Universities. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—Matron. A leading institution is in search of a matron for Fall term. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—Vocal Teacher. A college has asked us to recommend a lady or man for position of vocal teacher. Salary \$1,000. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—50 High School assistants: 100 Grammar Grade teachers; 100 Intermediate teachers; 100 Primary teachers. For Fall opening. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

PRINCIPALSHIP in Iowa. \$700 to \$800. An Iowa School Board has written us for a principal for Fall. We invite correspondence with suitable applications. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—Traveling Agent. A leading publishing house has written us to recommend a young man for agent, to travel in their books. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

WANTED—Principal for Preparatory and Normal department of a leading college. \$1,200. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

FOR Sale or Rent—A large number of Colleges and Academies in various states. \$500 to \$10,000. For particulars, address Teachers' Co-operative Association, 70 Dearborn street, Chicago.

DIRECTOR—for Musical Conservatory, \$1,000 to \$1,500. A Normal School has written us to recommend a man or woman for the above position. An excellent opportunity. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

\$2,400 to \$1,800. Principal wanted for Fall term Chicago. We have been requested by a School Board near Chicago to find them a principal for the Fall Term. Have been paying \$1,800. New man must begin on Jan. 1. Full application to Teachers' Co-operative Association, 70 Dearborn street, Chicago.

The above are a few of the hundreds of positions now on our books for the Fall term. BEWARE OF IMITATIONS. Certain unscrupulous parties, with an intent to deceive, have copied our circulars—not only in word and phrasing, but also in style of type and form of make-up, even to the minutest detail. The fact that we have branches and that they have used to secure members, who suppose, in judging that they are becoming connected with the Co-operative Association of Chicago. Every day many of our friends and teachers in different states write to ask us if we have given mention to those parties—"Imagines" and "co-operative" agencies—to use our form and copy our methods.

We have no connection with such parties. If you wish to know whether an agency is reliable, do not ask how many leagues and branches they have, but the one short question will settle any fraud or semi-fraud agencies, viz: "Have you filled positions, how many, when, with whom?" If an agency cannot make a showing of positions filled, no matter what its representations may be, it is not the agency for you.

The Teachers' Co-operative Association of Chicago, under the management of Mr. Orville Brewer, has many agents, but all members are registered first at the central office, 70 Dearborn street, Chicago. This agency is always ready to prove its right to your patronage by showing the substantial and successful work of many years. A list of 600 positions filled in 1909 will be sent on application. Also our New Manual of over 100 pages, containing several hundred testimonials, all written within the past three months and all given by those who have had experience with our work, either by getting positions, or teachers. These two books will be ready in a few days, and sent free to any address. Address: Teachers' Co-operative Association, 70 Dearborn street, Chicago.

[Mention this paper.]

TEACHERS' CO-OPERATIVE ASSOCIATION, 70 DEARBORN ST., CHICAGO.

INDIANA SCHOOL * JOURNAL.


VOL. XXXV.

JUNE, 1890.

No. 6.

BASIS OF APPORTIONMENT OF STATE SCHOOL REVENUES.

E. G. MACHAN, SUPT. LA GRANGE COUNTY.

 HE Constitution provides for "A general and uniform system of common schools, wherein tuition shall be without charge and equally open to all." The courts have construed the constitution and the statutes of our state as providing for a common school system, which must be general and uniform. The right of the state to maintain its corporate life, its right to hold an honorable place among the nations, and its right to attain prosperity, are the basis of its right to determine the education of its future citizens. In order that education may be universal, it must be made gratuitous, hence the provision made by the constitution.

From the above we deduce two general principles: 1. The wealth of the state is pledged to the education of the children of the state. 2. The money obtained for this purpose is distributed on the ratio of the children to be educated without regard to the source from which it came.

On the basis of the idea involved in the first principle, the state levies a tax of 16 cents on the one hundred dollars, and on the second is based the distribution of the funds thus obtained, with that of the common school fund.

It has been claimed by a few, that as the cities are the great centers of wealth, they pay a large share of the tax, and in return are entitled to a large proportion of the funds, and as Mr. Mott put it when discussing the

question at the Association last winter, "ought not to be asked to contribute still more." We most assuredly do not desire that they should pay more than their equitable share, neither are we willing that they should deprive us of our just dues. If the principles involved in the constitution are right and just, wealthy communities should enter no complaint against paying more than they receive in return. The success of the state, the safety of the opulent depends largely upon the education of the masses. The cities have great advantages over the rural districts, in that their school population is more dense and can be handled to the best advantage, thus educating larger numbers with fewer school buildings, and a less number of teachers. The grading is more perfect, thus enabling a single teacher to manage successfully two or three times the number of pupils usually managed by a teacher in the country. This enables the cities to support high-schools, and to continue the terms of school *longer* than those in the country. These advantages, with that of foreign tuition from those who attend from without the corporation; give the city schools a decided advantage over those in the country, and it seems to us they are all the advantages that can reasonably be claimed.

It is apparent that the cities have the advantage over the country in any equitable method of apportionment. Why then, should they resort to fraud, as many of them have done, to obtain more than that to which they were justly entitled? When we consider other advantages, such as children educated in denominational schools, those employed in factories and workshops, as well as those on the streets without occupation,—all of whom are enumerated and the cities draw the public funds for their education, yet are at no expense whatever in educating them,—when we consider all this, is it any wonder that we are indignant at the imposition? When cities have every advantage, then to resort to fraud to multiply those advantages, it is time for the people of the rural districts, in united effort, to demand of the Legislature immediate and effective relief.

If the enumeration of school children were fairly and honestly taken, and if its results were not largely affected by local and accidental causes, there would be but little objection to it as a basis for distributing the school revenue. However, we shall attempt to show that in many of the cities it is not honestly and correctly taken, nor has it been during the last decade. Furthermore, we claim the present basis is not an equi-

able one, inasmuch as the enumeration of the school children does not indicate the number to be educated in the public schools. To substantiate this, we would call attention to the following comparisons:

Indianapolis enumerated last year 47,991 children; enrolled in the public schools 22,936, and had an average attendance of 11,912. In the county outside of the city were enumerated 12,247; enrolled 7,882, and an attendance of 4,771.

Richmond enumerated 6,144; enrolled 2,536, attendance 2,035. In the townships of Wayne county, there were 6,908 enumerated; 4,933 enrolled, and 3,379 in attendance. In this case, the enrollment in the townships was 764 greater than in the city, while the average attendance was 1,344 greater.

La Fayette enumerated 7,172; enrolled 3,270, and had an average attendance of 1,886, scarcely more than one-fourth of the enumeration. In the townships of Tippecanoe county the enumeration was 7,206; enrollment 4,899, and attendance 2,399, nearly twice that of the city.

Fort Wayne enumerated 11,606; enrolled 3,985, and had an attendance of 2,840, while the townships of Allen county enumerated 10,410, enrolled in the schools 6,755, and had an average attendance of 4,005. The townships enumerate less than the city, but have nearly twice the attendance.

These are but a few of the many similar comparisons that may be made. In the cities named very little tuition tax is paid; some of them none whatever, while in the townships given the local tax is from 6 to 25 cents on the hundred dollars.

The small percent of pupils who attend school, of those shown to be eligible by the enumeration, is evidence that some plan should be devised by which a larger number will enter school and a greater attendance be secured throughout the term.

While we are aware there are but few enumerated who are not in school a portion of their time, we do deplore the fact that they are not kept there longer.

In reality the present plan of apportionment places a premium on truancy and non-attendance.

In over crowded cities and towns it is so much easier to let children remain at home or roam the streets, than to be at the expense of additional school buildings and teachers, that too often little effort is made to

provide for them. Were it so arranged that money would be drawn for those who attend school only, this condition would be materially changed and every effort would be made to bring them into the schools and to keep them there.

Another cause of injustice to country schools is the advantage the public schools in the cities have in receiving public funds for all who attend denominational or private schools. However, our city friends claim an injustice would be done to all who patronize such schools, were the present plan changed, as they would not only be at the expense of tuition, but extra taxation on account of the additional amount to be raised to support public schools. In reply to this we will only say that in cities where enumerations are honestly made, the increased amount that would be received per capita will very largely make amends for what would be lost on those not attending, and if the basis were made the total attendance for the school year, very little if any loss would occur in many cities of the state. Moreover, these parents are not required to pay tuition. The *public schools* are *open* to their children. But if they prefer *other* schools and are willing to *pay* for their preference, it is their *own* choosing and they have no grounds for complaint.

The public school is a *grand* institution and should receive the fostering care of every *liberty loving, loyal citizen*.

The greatest grievance the people of the rural districts have, is not in the wrongs that arise from the imperfections of the present basis of apportionment, but those which spring from its abuse. This result is brought about by an exaggerated enumeration of children of school age on the part of cities. In evidence of this, we would call attention to the following facts. To show that this imposition on the country is not by a few cities with unscrupulous school boards, but that it is, we are sorry to say, quite general, we have drawn our comparisons from sixty-three cities of the state. Our calculations are based on the estimated population taken from the last report of the Bureau of Statistics and the enumeration of 1889.

In this list we find but thirteen cities wherein the enumeration is less than 28% of the estimated population. And in the remaining fifty it ranges from 28 to 43%. This however, is made upon an estimated population which is almost invariably too high. By reference to the census of 1880 and the reported enumeration of that year, we find Ft. Wayne enumerated 52% of her population as children of school age. Vincennes

50%; La Fayette 43%; and Indianapolis 41%. At the same time Chicago enumerated but 30%; Baltimore 26%; Columbus, O., 31%; and Peoria, Ill., 31%. These comparisons are made with cities in which the school age is the same—6 to 21 years. Why is it that the cities of Indiana are composed of a population so youthful? Possibly our city friends can answer.

I think it a fact not to be disputed that where school enumeration, 6 to 21 years, exceeds 30%, it is too large a ratio of the population. The correct ratio is nearer 26%. This becomes apparent when we consider that there are more persons under six years of age than exist during any other six years of life. To this add all who are over twenty one years of age, and all married persons under this age, and we readily see that there can not be many more than one-fourth of any community of school age.

Mr. D. M. Geeting, Deputy State Supt., has made a careful computation, taking his data from thirteen states, and has found that the poll, together with the enumeration, is one-half the population. In other words, the children between the age of 6 and 21 years and the male inhabitants over 21 years of age constitute one half of the population of a community. He finds that the poll equals 22 to 24% of population, and that the enumeration, if correct, is from 26 to 28%. The greatest variation in these two factors is as 22 to 28, and in many instances they are nearly equal, being as 24 to 26. By taking the poll of any township and increasing it by one third, the highest possible correct enumeration will be obtained. Compare if you please Marion county with La Grange county. The poll of Marion is 37,554. If this be 22% of the population, the population would be 170,700, and 28% of the population would give an enumeration of 47,796 children of school age. The poll of La Grange county is 4,135. As this county contains no city, to show all fairness in our comparison, we will consider the poll to be 24% of the population. This would give a population of 17,230; 28% of this is 4,824. The actual enumeration in this county last year was 4,845, 21 more than the number obtained by the computation; while that of Marion was 12,442 more than that obtained by computation, with an allowance of 2% in its favor. By the other method of increasing the poll of a county by one-third, we find Marion would have a school population of 50,072, which is 10,166 less than that reported last year. La Grange county by this method would have a school population of 5,513, which

is 668 more than were enumerated last year; and we will here say that we will vouch for the full number having been reported. By this method of computation, Posey county last year reported 2,904 more than she should have done; and Vanderburg reported 3,746 in excess of her actual number.

We could multiply illustrations of this kind, but enough has been said to demonstrate the fact that in many of the cities of the state greatly exaggerated, if not fraudulent enumerations have been made. We have shown this to be the case in 1880, when we had the census on which to base our comparisons; and we have shown, too, that the enumeration in cities of Indiana were much larger than in cities of other states. We have shown it to be too large by the estimated population of cities as reported by the Bureau of Statistics last year, and again by careful computations which prove themselves to be approximately correct. Only three years ago the enumeration in the city of Ft. Wayne was actually reduced about 5,000, which is more than the entire enumeration of either La Grange, Steuben, Benton, or thirteen other counties in the state; thus depriving others of what rightly, in reality belonged to them. Nor is Ft. Wayne the only transgressor in this, others have sinned as greatly, but have not suffered the same exposure. We do not charge school officials with willful fraud in all of these cases, but we do charge them with neglect of duty in not earlier correcting the evil.

The fact is indisputable, that the rural districts have been shamefully defrauded.

The Americans are a people who will suffer long, and endure much before asserting their rights, but when aroused to a sense of their wrongs their demands for justice are liable to be excessive. They are not always satisfied with their grievances righted, but often insist upon chastising those who had the temerity to do them so great injustice. The wrong has been perpetrated and the people realize the fact. How to remedy the evil is the all important question. We fully realize the danger of impulsive, hasty action. Of all remedies yet suggested none are perfect. The method now in use would probably have as few objections as any had we a practical compulsory education law, and the law was so guarded that fraud in taking the enumeration would not occur. It must be apparent to all that a greater number of children should receive the benefits of the schools. And it is equally apparent that justice should be done

the people of the rural districts. The present basis of apportionment is defective in obtaining either of these results, hence by all means it should be remedied or changed.

If the present method can not be so altered as to prevent fraud, and a compulsory education law can not be had, we would suggest that the basis of apportionment be made the actual, total school attendance of all children between the ages of 6 and 21 years who may attend the public schools of the state. To avoid injustice in the first apportionment, we would suggest that it be made on the basis of population as shown by the census of this year, and afterwards on the total school attendance of the year last preceding. This would probably be the best substitute for a compulsory school law. It would certainly be more American in its nature, as it would induce, rather than compel children to attend school. Moreover, the money would be apportioned to those who would use it. As the cities claim they educate their children at an earlier age, this method would do them no injustice, but would encourage, rather than retard. While this plan would not give to the rural districts so large an amount of funds as that which would be given were enrollment made the basis, it would do a much greater work for their schools, and would be less subject to abuse.

Whatever remedy may be applied, it should be one that will do the greatest possible good to all. Enrollment as a basis has serious objections, one of which would be the opportunity for fraud. We have had enough of this! We want no more!

Whatever remedies may be devised, the one adopted should be one that will provide the most impartial justice to all, and at the same time offer the fewest opportunities possible to selfish, designing men, by which they may impose upon the people of any locality. The state is supposed to provide, impartially, for the education of all her children. Does she now do so? In one locality the money is provided for the education of the children as it is in another. In one from 80 to 90% of the children receive the benefit of this money; in another it is expended upon 30 or 40%. Who will say the locality that is required to spend its money upon the 80 or 90% can share equal privileges with the one that spends it upon 30 or 40%? The fault lies not so much in the inability to detect fraud, as it does in the failing to provide equally for the actual schools that exist. When in many localities, with the tuition levy at the highest

limit, the people are unable to pay teachers more than a dollar a day to continue a school seven months in the year, or must adopt the other alternative of shortening the term, it shows plainly that the intention of the constitution is not fulfilled.

The evil exists and must be remedied. The question for solution is, How can this be done, and equally provide for the education of all?

*SCHOOL ROOM AND SCHOLARS.**

MARY L. BROWER, M. D.

My subject is broad enough to say what I may without being accused of wandering from it.

What I want to do is to call your attention to a few points which have claimed my thought more since I quit teaching than while in the work. Although it is but a short time, I have learned to look after some things that did not then attract my serious attention—though I had studied physiology and psychology before I ever took charge of a school.

Before I am through, I suspect you will say I am adding burdens to your already arduous labors. If so let me say at once I would compensate you by increasing the school year to nine or ten months and raising your wages to a point where you can make a living for the entire year.

The *teacher* is the educator in this commonwealth. In many of the districts where you teachers labor you are the most influential example in hygiene, education, morality, and religion—what can you mention in the social life of the people which you do not greatly influence. Of course it is very different in a well organized home, where the parents are alive to all the interests of the child, and there is a pastor to look after the religious life, a doctor to look after the hygiene, and good books and papers to develop the intellectual—in such families the teacher's influence is not so great. But take the country districts where there is no church or Sunday-school and little good reading-matter, what is there but the school and teacher that has an educating influence upon the people. Upon the common school teachers of to-day more than upon any other class of citizens—preachers not excepted—depends the character of our citizens twenty years hence. What we want of every teacher is an education broad enough to comprehend what is for the good of the child.

* Read before the Hancock Co. Teachers' Association.

and enough of the hero spirit to do that thing whether it be popular or not. Every teacher needs Carlisle's *reality* or *sincerity*.

To come to our subject: There is little in reference to the school room on which we need to dwell, though our architects and trustees need to understand the requirements of a good school-room much better than some of our buildings indicate they do. Let us mention a few things which you can have changed if they do not suit you. One thing has worried me much, that is the prevalent school-house with a single board floor with cracks in it and the wind howling under the house. The stove is kept roaring all day long to keep the room warm, but in spite of all that the floor stands at about freezing while the upper part of the room is 80° or 90°—a difference as great as an average day in March and June. You can not expect June roses to bloom in March soil. The memory of cold feet is one of the most unpleasant of my common school days. You teachers ought to raise such a howl that there would not be another winter school taught in a house that is not underpinned. Do not be satisfied with just boards. Either have mason work or boards or logs banked up well with dirt. In the summer the dirt can be removed so it can be well aired and breed no malaria.

Have your room lighted at the sides, not in front; for it is injurious to the pupils' eyes, nor at the back for the sake of the teacher's. Have the room well lighted, but do not let the sun's rays fall upon the child's book. Have a light shade that admits the light but breaks the rays. The black-board should be in front, not between windows.

Ventilation is sometimes the great hobby of the country teacher. As I have known it there is more over-ventilating than under. Of course there are both extremes, and there is often a great irregularity in the fire, so that doors and windows have to be thrown open to get rid of the surplus heat. The heat should be kept as steady as possible, then ventilation is best done by such openings as give a gentle ingress and egress of air without current and of such quantity as to keep the air pure. Many a time have I gone into school-rooms where windows on opposite sides of the room were down from the top—or worse still from the bottom—a foot or more, and the blinds rattling in the current. Then the teacher fancied he had ventilation; so he had, but the pupils caught in this wind-storm had more—they had sore throats, colds in the head, earaches, etc.; for, though one may step from a hot room out into the cold without injury,

because the whole body is subjected to the same conditions, a current produces local congestions.

A good plan for ventilation, if you have a window near which no one need sit, is to lower it at the top and raise it at the bottom, so the air comes in and goes out at the same part of the room, and all the current in the room is at that window, unless the wind should be strong. You must always take the precaution not to use a window on the side of the house from which the wind comes. But many of your houses are so crowded you can not spare the room around a window: in that case you can get some boards as long as the sash is wide and two or more inches through, which you set under the lower sash. This gives an air space between the sashes through which you get an upward current which will not strike any one. Or you can lower the windows from the top only on but one side of the house, and that the one from which there is no wind. You give the fresh air a chance to get in, and the hot air will find its way out if you have an open fire, as most if not all of you do. Here is one element of ventilation that teachers often do not consider. The heated air in your stove rises and passes out of the chimney—air from the room is constantly taking its place, and what takes the place of the air in the room? Do you suppose you are creating a vacuum when you have no open windows or doors? Air pours in at every crack and crevice. You will find that the air inside weighs about as much to the square inch as outside.

How are you going to tell when the air of your room is sufficiently pure? Our scientific works tell us that a grown man requires about 48 cubic inches of air per minute; that an increase of CO_2 to $\frac{1}{10}$ of one part to 1000 will not support life; that every person requires so many cubic feet, etc. But how can we measure it? Many times as much air will come in at an opening one time as another, according as it is wind out of doors or there is a strong draft in the stove. It is a sufficient rule to say that the air should always be so pure as not to feel oppressive upon coming in from out of doors.

Enough for the School-room, what of the Scholars? Make your pupils comfortable. We have said his feet should be warm. The seat should be so high that he can rest his feet on the floor and sit erect and easy. Do not keep your pupil at work after he becomes tired. Mental work is healthy if one stops when he is weary. An hour's close application is as long

any of our common school pupils can stand at a time. The mind needs a few minutes to relax. I used to like the hourly recess for this. If you do not want this, introduce calisthenics, having them breathe deep and full, taking care to have more fresh air in the room at that time; for a child uses three times as much air during moderate exercise as when quiet.

Most of our children are worked too long. The one-half-day system is better for the primary room, if you can make the parents think so; if not, then you must furnish them much amusement and exercise, or they will furnish their own and be injured.

Near-sightedness is a defect almost universally acquired before the pupil is twenty years old, and usually when he is a mere child. It is produced by using the eyes when the child is hot, head congested, nerves tired and eyes relaxed.

If a child is weary and sits bent over his desk his respiration is not good, the lungs are not well expanded,—just here may be laid the foundation of future lung trouble. Most people think because we breathe without any thought, therefore we all breathe right; whereas there is nothing, scarcely, that we do less perfectly. Every teacher should drill his pupils in the use of their lungs and voice. You should look to that development of the children which will make the best men and women of them, not to that which will make the most show in the school-room. Physically as well as mentally "the child is father of the man." Most of the foundation of ill health is laid in childhood—consequently during school days. Mark, I do not say the school-room is to blame for it. I believe you will find the children who go to school more healthy than those who loaf, because they are more hygienic: but many of our school children are not as healthy as they would be if teachers gave them proper attention.

Mental and physical development should go hand in hand. Industrial schools are a good thing, if they can not be otherwise combined. Parents ought to look after work and amusement for the children mornings and evenings. If they have a long walk to school it is the better for them. Children under twelve years should not study of nights, if they study hard during school hours they will accomplish as much as during longer time. Their evenings should be given to a well selected course of reading and to amusements. The brain like the stomach suffers from

over-feeding, so it loses its appetite and the proper amount of food is not digested. Above everything, teachers, do not let your pupils become disgusted with their books. Give them that amount of work from the text-book that they can carry with ease, then add to that talks on subjects of interest, on which they can think and read. Make their lessons concrete and not abstract.

I believe Comenius was about right when he would have the youth taught something of everything he is expected to know in life. Such a small percent of our children pursue their education beyond the common school that they need to make the best of their opportunities there. Let them get interested in birds, insects, stones, the stars—above all in their own make-up. The little child can understand that he should scrub his teeth to keep them from decaying; that he bathes the skin even if it does not look dirty to remove the dried up sweat and other excretions. Teach him what alcohol does for the brain and other tissues, and as a consequence its effect upon the mind—and you fortify him against temptation and danger.

Children, before they come to physiology, can understand that it takes pork and beans longer to digest, and they furnish more heat and muscle than a meal of mush—hence a good meal for a laboring man in very cold weather. That sugars, fats, and starches are warming foods, and acids are cooling. That oat meal, graham flour, or like coarse foods are as necessary for bulk as hay for a horse. The girl can be given an idea that half the food is in the cooking, and that it is an honor to her to understand how it should be done whether she intend cooking for a business or not. I venture the assertion if people understood well how to cook and what to eat, one half the chronic sickness would be banished.

There should be more familiarity between teacher and pupil than often exists—not that familiarity which breeds contempt, but such as the child feels towards its mother, that he may tell the teacher, if he fail to see the board or hear the question. Often a pupil suffers with a headache caused by defective eyes. The teacher ought to know more about the eye than the parent, and it is his duty to use his influence towards securing him suitable glasses, if he be in need of them.

In this age of rush, when the nervous system is over-worked and insanity is on the increase, scolding and hurrying of children should be avoided and everything conduce to tranquillity of mind.

Many other points might be mentioned, but my time is up. Let me quit with an exhortation to magnify your calling, give yourselves to study and preparation for your life-work. Inspire your pupils with a love of knowledge. Remember you are largely responsible for the development of the future generation physically as well as mentally.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS, Dean of the De Pauw University Normal School.]

METHOD IN LOGICAL DIVISION.

DEFINITION is the process of thinking diversity into unity; Division is the process of thinking unity into diversity. In Definition, the mental movement is from the individuals toward the general; in Division, from the general towards the individuals. The first is the "upward way" of knowing; the second, the "downward way"; using Plato's words. Each process is necessary to the full meaning of the other; and the two constitute the method in every science of classification; the one setting forth the content of the class, and the other, the extent. Definition sets forth the unity of the noun by giving its content; connecting it at the same time with the other parts of speech. Division separates this class into the kinds; as, concrete and abstract nouns; uniting at the same time the two classes into the class noun. These may again be subdivided into others; and the process thus continued till individuals are reached; connecting at each subdivision the parts into the whole subdivided. By these two movements, we arrive at an organic, unified conception of the noun.

It should be observed that each division has implicit in it a new definition; while each definition involves a division. The two are complementary phases of the same process. The distinction arises in a difference of emphasis by the attention. In Definition, the emphasis is given to the unity of the parts; in Division, to the parts in unity. The mind can not think a class without the common content which unifies, and the parts which are unified; so that Definition always implies Division, and Division, Definition. When the noun is defined, it must, in its unification, be separated from the other parts of speech; and at the same time connected with them: and when the noun is divided into concrete and

abstract, the unifying attribute of each class must be given, along with the common attribute which binds the two classes into the noun. A definition of each of these must state the common attribute recognized in the division; and at the same time unify the two in the noun by the attribute used in the division. Thus Definition and Division are not two things, but complementary phases of the same mental process.

From the foregoing statement of the nature of Division, its laws and processes are readily ascertained. The fundamental law, Unity, requires that the unity of the class be maintained in the process of division. This means that each sub-class be thought into its own unity, at the same time that all the sub-classes are thought into the unity of the whole. It will be recalled that in Definition the common attribute in which the class was unified had two phases, the particular and the universal. The same fact appears in Division. The sub-classes must be unified in the whole by some attribute which, at least, must extend to all the individuals of all the sub-classes, while each sub class has its own particular unifying attribute. The unifying attribute of each part must be some phase of the unifying attribute of the whole class, in order that the sub classes be united in the class. The individuals in the class, noun, are unified in the fact that all express objects. Some phase of this fact must serve to unite the parts of the class, and thus to divide it. While the basis of union is that of expression, the basis of division is that of expression. This fact unifies the parts of the class in the whole. Some nouns are found to express abstract objects, and some concrete. Each of these sub-classes is unified on the same basis—expression. It is illogical in thought and impossible in fact to unify one sub-class on one basis and another on another basis. Make the trial, with the class apples, of putting them in bunches; the apples in one bunch being alike in color; of another, in taste; of another, in size, etc.; and it will readily appear why it can not be done in thought. Thus try to place on the table in groups actual nouns; the nouns in one group being alike in that they express concrete objects; in another, in that they have two syllables, etc. This will make clear what is meant by securing unity in each of the sub-classes respectively, and of all the sub-classes in the whole. It is a fine exercise, which should be oft repeated, for the student to test the unity of his division by placing before him, in imagination at least, the actual objects being classified. This will train him in thought to be true to the relations in things.

The first step, therefore, in securing unity in division is to select some fundamental basis of division, as already determined by the definition of the class to be subdivided. The second is to unify each sub class on the one basis selected.

As before stated, the attribute of expression is the unifying attribute of the noun, as set forth by its definition—A noun is a word that expresses an object. This essential fact of the class must be carried through as the basis of division and unity among the sub classes. In expression, nouns differ as to the *kind* of objects expressed,—some express concrete objects, giving the class concrete nouns; and some, abstract objects, giving rise to abstract nouns. The concrete nouns again differ in expression as to the kind of *concrete* object expressed; some expressing individuals; some classes; some collections; and some, masses; giving rise to proper nouns, class nouns, collective nouns, and mass nouns. The abstract nouns differ in expression as to the kind of *abstract* object expressed; some expressing qualities; some actions; some conditions; and some relations; giving rise to classes of nouns of the same names.

From the subordinate mental process given in Definition, the reader will readily apply those required in Division.

The educational value of the mental process called Division needs emphasis. One mark of every well trained mind is the habit of reducing a class into a system of logical subdivisions. This requires accuracy, thoroughness, method, and unity in the mental process. For the sake of the discipline which the mind gains by fitting its thought into the system of things, the student must be held rigidly to the law of unity in logical subdivision. As soon as possible he should be made conscious of the law, that he may guide his own processes. He should never be permitted to make loose systems of classes; for in so doing he is becoming a slave to slovenly habits of thought. The practice of the teacher is sadly at fault at this point. Any sort of loose jumble of parts is tolerated. The pupil copies the classifications given in the text without concern as to the process by which they are constituted. Whether the outline is right or wrong matters little; the error is in the passive reception of it. The pupil should either construct his own outline, or test the one given so as to make it his own. It is not the fact of having the outline, but the fact of performing the process by which the outline is produced that gives it value. The thing needed is the form of mental activity to which the mind is trained—a form essential to the mastery of the world's thought.

ORGANIZING VALUE OF REMOTE CAUSES.

IN 1622 Jamestown numbered three or four thousand people. But an odd town it was. One street, a hundred and fifty miles long—the James River. On each side of this river were located the plantations at irreg-

ular distances. There was little communication between plantations except by the river. They were isolated by large stretches of dense roadless forests and bridgeless streams. The immediate cause of this isolation—this scattering of the population—was the system of slave labor. Whether the slaves were indented whites or negroes, the system paid only when managed on a large scale. The settlements along the James were typical of the distribution of population in the whole of Virginia. Along each river of the colony, pushing up toward the head of navigation, the population scattered itself. The settlements along different rivers had little inter-communication. Intercourse with England was easier and more convenient than with settlements along different and distant rivers. As Jamestown was the type of Virginia, so Virginia was a good example of the whole South. Sparseness of population was characteristic of the entire section. Any other system of labor might have concentrated population, but slavery was hostile to towns and cities and to variety in occupation,—the conditions for a dense population.

Another of the direct effects of slavery was the peculiar influence of the system on the slaveholder himself. The isolation referred to above prevented the planter's daily contact with his equals. He was constantly in the presence of his inferiors. Even the poor white that occupied one of his cabins was looked upon as one of his underlings. The spirit of a master grew in him. His children inherited and intensified this spirit. The habit of domination pursued the planter everywhere. He became dictatorial and impatient in the presence of opposing views. He demanded what should have been asked for and refused to demonstrate to reason the justice of what he desired. This effect of the system operating in conjunction with the one named above—sparseness of population—constitute the fundamental weakness of slavery. These two weaknesses working together furnish the cause of every great struggle that slavery made, and of every defeat that it suffered. They must be seen as decisive factors in the whole movement that marks the rise and fall of slavery, if the events belonging to this movement are to be organized. In each particular event, then, forces must be discovered—permeating and controlling them—or else the individuals are not a part of an organized system. Such a test is the only true means of determining the relative value of remote causes in the process of organization.

The first great struggle over slavery occurred in the Constitutional Convention, 1787. When the delegates to this convention decided to make population the basis of representation in the lower house of Congress, it dawned on the Southern representatives that *their section would*

be largely in the minority, if white population alone should be counted. The delegates from some of these states demanded that the entire colored population be counted. The free states objected. The fight was a hard one and feeling ran high. The men from Georgia and South Carolina declared that they would win or prevent the creation of a union. They won, and the Constitution counted three-fifths of the negroes.

The first census, 1790, gave the North four more representatives than the South. The census of 1800 gave the free states a majority of twelve, while that of 1810 raised it to 25. In 1820, the North's majority in the lower house was 43. Thus in a little more than a generation, slavery lost the advantage that was written in the Constitution. Long before 1820, the slave states saw their advantage slipping away. What was the cause? *Slavery.* Honest toil in the South wore the badge of shame. There was little hope for the laborer. His family could realize no social aspirations. His children—the pride of his heart—could not enjoy the blessings of an education. These things were so at the beginning of this century because one section had slavery and the other did not. *Because the South had slavery,* the vast stream of emigration that started America-ward at the opening of the French Revolution and continued to grow during the Napoleonic Wars, avoided the Sunny South with its wealth of soil and genial climate, and chose rather the free North. As soon as the South saw the trend of population, a movement was made to preserve the balance of power in the Senate—a house whose membership is practically independent of population. The admission of Louisiana in 1812 brought the two sections into equilibrium in the Senate. This was changed in 1816 by the admission of Indiana, but was restored by the new state of Mississippi in 1817. Illinois, in 1818, and Alabama in 1819, kept the scales of senatorial power balanced. The struggle grew interesting. The South became excited and presented Missouri as a slave state in 1819. This was a dangerous move; it was not slavery's turn, and, besides, Missouri was not geographically a slave state. Again, the admission of a slave state might have forever prevented the admission of other free states. The North saw the point and was alarmed. The struggle over Missouri continued with great excitement through several sessions of Congress. The fight showed the weakness of slavery's cause. The same spirit that won in 1787, tried by similar means to force in Missouri. The aggressiveness and arrogance of the slaveholders roused a sentiment so strong in the North that for the admission of Missouri as a slave state, they had to admit, before it, the free state of Maine, and draw the famous compromise line, above which slavery could not go and below which

freedom had a fighting chance. *Thus we see again that slavery's weakness forced the fight and lost it.*

As the friends of slavery looked over our territories between 1820 and 1830, the hope of success must have seemed small indeed. Florida and Arkansas alone were left to the South, while in the West and Northwest a large number of new states might yet be carved out for the North's share. In this extremity, the greedy eyes of slavery beheld Texas—a border state of Mexico to which this country gave up all claim in the treaty which purchased Florida. Slavery pushed itself into Texas and maintained its hold there in violation of the laws of that country. It picked a quarrel with Mexico and won the independence of Texas by men and money from the slave states. Annexation was forced, and war provoked with Mexico that more land might be obtained to make slave states. For this end, thousands of men and money were sacrificed. Land was won, but slavery could not enter upon its inheritance.

The war had hardly closed till gold was discovered in California. The news spread over the country like wild-fire. From all places and all occupations men rushed to the new land. In a short time the miners organized and formed a constitution prohibiting slavery. Why? Because a majority of the voters were from the free states. Why? Because the North had more people to send to California than the South. Why? *Because the South had slavery.* Thus the very weakness that made slavery struggle for new territory made it impossible for slavery to control it. The rage of the South knew no bounds as she witnessed the fruits of the Mexican war slipping from her grasp. In her anger she forced the Compromise of 1850, containing the infamous Fugitive Slave Law, as the price the North had to pay for California's freedom. Notwithstanding this, slavery opened the fight for Kansas in 1854. The Kansas-Nebraska Bill left the question of slavery or freedom to the voters of the territory. This was a challenge to a test of numerical strength. On such a basis, there could be but one result—the success of the North. The surprising thing is that the South accepted the contest on such a basis. Again we see exemplified the *inherent weakness of slavery struggling to overcome itself and failing.*

Slavery not only lost Kansas, but lost, also, the support of many persons in the North who had been its sympathizers, and created a political party that polled nearly a million and a half of votes. The Northern Democracy began to distrust the slaveholders, and refused to follow their dictation. In 1860 the National Democracy assembled at Charleston, South Carolina. There, in the house of its friends—if it had any—slavery

hibited its weakness again. Its dictation and arrogance in making a platform for the party drove the Douglas delegates away from it. The Southern delegates were in a minority in the convention, and the voters they represented were in a still greater minority in the party. The Northern delegates rightfully refused to sacrifice Douglas to their demands.

This division in the ranks of the Democracy insured the election of Lincoln. This was a pretext for secession. But from the nature of our union, secession meant war. Slavery was never blinder than when it tested its fate on the fortunes of war. In its blindness, in its arrogance, it did not pause to study its experiences in the past. It did not stop to think that in such a war, numbers decide the contest. It was decided by numbers. In courage, in discipline, in endurance, in devotion to a cause, in the skill of its officers and the enthusiasm of its men, few people in this day can tell the difference between the two armies. Freedom gave the North the advantage in population and the resources on which population is based. Slavery failed in its last struggle because it had *depleted population and its attendant resources from the South.*

The discussion above indicates how the mind may use a remote cause in history in organizing—interpreting and unifying—a large number of very diverse events into a completed whole. Unless the mind puts this fundamental cause of the decline and fall of slavery into all the events attending it, they remain as so many empty and isolated facts. Empty, because their historical content has not been found. Isolated, because identity of content has not been discovered.

W. H. MACE.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

EMPHASIS UPON THE PROCESS.

THE point of view from which to determine the design of school education, is that of the material dealt with; from the point of view that the subject of education is a living, spiritual organism. This being unique in that its phenomena are conscious, triple activities. Its simplest phenomenon is three-fold, in that it may be always thus interpreted. "I know something"; "I feel somehow"; "I do something." (See Article on Psychology, by James Ward—Encyclopedia Britannica, Volume xx.)

This triple nature of each act of mind, taken in connection with school environment, is the basis of the division of teachers into:

1. Those who emphasize school-environment, and set up as an end, the efficient working of school-instrumentalities.
2. Those that emphasize that phase of the mental activity expressed by,—“I know something,” and set up as the end, *knowledge*, i. e., the mental state viewed as *product*.
3. Those who give emphasis to that phase of the phenomenon expressed by,—“I feel somehow,” and hold before them as a prominent end, the inculcation of interest.
4. Those who emphasize that phase of the phenomenon expressed by,—“I do something,” and hold as the aim, the true practical answer in each individual, of this question—How shall I do that which is for me to do?

These last, in their teaching, emphasize the process. The teacher who devotes his energies to the preparation of school blanks; the keeping of neat records; the obtaining of the highest record in attendance; efficient distribution of supplies; harmonious working with the board; and all those essential, but external things, is an example of the first-class. These things are important, but they are means. The teacher who regards the number of ideas as the measure of efficiency of school-work, together with the ease and rapidity with which they are acquired, and reproduced, and who emphasizes the practical nature of the school-work in relation to the commercial phase of life, is an example of the second-class. The teacher who considers the arousing of interest as the prime mark of artistic teaching, and who justifies or condemns school devices and school methods on the basis of the degree of their power to arouse interest in the pupil; and whose mural decorations, Friday afternoon exercises, reading from papers, magazines, and various periodicals, rest upon this thought, is an example of the third class. An example of the fourth-class, is one who views regulations concerning tardiness, absence, and whispering; class-movement; questioning in the class; the ideas considered; and all things involved in the nature of the school as instrumentalities for establishing spiritual habits.

THE PURPOSE SHOULD BE EXPLICIT.

TEACHERS may be classed on the basis of pursuing whatever purpose is held, with or without insight. Every teacher acts with a purpose either explicit or implicit. If the purpose is one not based on insight, it may be vague, incomplete or inconsistent; that is, certain phases of the

purpose may be contrary to certain other phases. When the purpose is a conscious one, based on insight, there is but little opportunity for this to occur, for insight includes:—

1. A grasping of general principles.
2. A conception of facts scientifically organized.
3. An idealized result or end.
4. The analysis of the idealized result into its process of becoming.

An end, therefore, includes:—

- a. The idea of the perfected result.
- b. The idea of this result in its entire process of becoming, or development. Hence it does not follow that the teacher who has clearly in mind the true end merely as a perfected result, will do efficient work. For example, a teacher who sets to work to teach the idea island; to produce the characteristic called well-informed, or the characteristic called justice, and who is content with knowing merely what an island is; what it is to be well-informed, or what it is to be just, may prove in his work ultimately, an injury. He must, in order to avoid error, ask a second question; one which involves a more complicated answer; viz., What is the idea island, the characteristic well-informed, or the attribute justice, *in its process of becoming*, from the simplest germ to the mature product, i. e., What are the steps in the process?

STRENGTHENING THE MEMORY.

THE memory may be strengthened:—

- a. Indirectly.
- b. Directly.

(1) The memory may be strengthened indirectly by teaching the idea, object, or thought in its relations:—

- a. To the self; i. e., lead the child to see that the new acquirement is of value to himself, and that he is able to accomplish it. This will invest it with a higher degree of interest.
- b. To other things; i. e., lead him to see the likenesses and differences in this to past acquirements.
- c. Bring out the time and place relations, which are involved to a degree in (b).

(2) The memory may be strengthened directly by repetition. This, however, is involved to a degree in the indirect training of memory and should rationally follow it.

Illustration:—

“What care though owl did fly,
About the great Athenian admiral’s mast;
What care though striding Alexander passed
The Indus with his Macedonian numbers.”

In teaching these lines (even if the aim were not the thought, but merely to retain the stanza in memory) we should endeavor to lead the child to see that it will be beneficial for him to know them. They may have some connection with the history he is studying. Call to mind the fact that he has learned other lines and whole poems with pleasure and profit. Thus his interest is enlisted. Then point out the likenesses in the first three words of lines “1” and “3”; the same number of measures in lines “2”, “3” and “4”; that “mast” and “passed” sound alike though different in form; the difference in the number of feet in line “1” and the other lines, in the meaning of “mast” as used here and when it is used as food for swine; that the owl is the emblem of wisdom—usually found in deep forests or about old ruins—unusual that it should fly about the mast of a ship—hence must be an omen of some kind to the “Athenian admiral”; that this Alexander is the same one of whom he read in his Reader last week at school, (time and place); that week before last he learned a selection containing two lines similar to two of these:

“What matter how the night behaved,
What matter how the north wind raved.”

(Similarity, time, and place), etc.

If this indirect training is thoroughly done there will be small need of repetition.

(3) From what has been stated above in regard to memory, there may be derived the following educational principle:

In order to remember an object so as to make it a permanent possession, one should in first learning the object, see it in all its prominent relations.

Let the process be further illustrated by a reference to the First Voyage of Columbus. Every historical event may be viewed in two ways—in relation to the age in which it occurred, and in relation to the present age. There are certain principles belonging to each age which are the ruling principles of that age, and every historical event may be viewed as the sign of the age in which it occurred. Hence in studying the voyage of Columbus it is necessary to understand the principles of the age of Columbus. One of the principles of the age of Columbus was the interest taken in *navigation for exploration*. In the present age navigation is

not carried on for the purpose of exploration, but for the purpose of commercial intercourse.

A second principle of the time of Columbus was that *all public land belonged to the king*, and all newly discovered territory belonged to the king of the country that discovered it. No such theory as this is generally held by civilized nations at the present time. If an island were to be discovered in the Pacific Ocean by a party of American navigators, they would not take possession of it in the name of the President of the United States, but in the name of the people.

Another principle of the age of Columbus was *the great enthusiasm for the extension of the Christian religion*. At the present time there is a general and deep interest in religious matters, but religion is not the one great object of nations:

A fourth principle of the time of Columbus was *the belief that a Christian nation had a right to take possession of any country whose people were not Christians*. Such a theory at the present time would be viewed as wrong. It would be considered unjustifiable for the people of the United States to take possession of China simply because the Chinese are heathen.

A fifth characteristic of the age of Columbus was *the great superstition of the people*.

After seeing the principles of the age of Columbus, we should in studying the voyage of Columbus, divide the relations into two classes.

1. All those relations in the voyage of Columbus that point to any of the principles of that age, or the principles of the present age, we would call the essential relations.

2. All those relations that do not point to any of those principles, we would call the non-essential, or subordinate relations.

(a) The essential relations.

There are relations of the voyage of Columbus that are signs of the interest taken in navigation. The voyage itself shows the interest Columbus had in navigation. Columbus started out to reach the Indies, which had not been reached by water. This principle may also be shown by comparing the voyage with the voyage of Magellan, and the other Spanish voyages.

There are relations that are signs of the great religious enthusiasm of the age. The performance of religious ceremonies before leaving Palos, one of the vessels of Columbus being named "Santa Maria," the naming of the island where he landed "San Salvador," the raising of the cross and giving thanks to God, show the religious feelings of Columbus. If

a new continent were to be discovered at the present time by a party of navigators, no such marked religious feelings would be shown.

The principle that all newly discovered lands belonged to the king is shown by Columbus taking possession of the island in the name of the king of Spain. This principle can also be shown by comparing Columbus' voyage with that of John Cabot and the expedition of Cortez. When Cabot landed at Labrador he took possession of the country in the name of the king of England. Cortez in his expedition to Mexico determined to make the Mexicans acknowledge the Christian religion and the king of Spain. This comparison also shows the principle of the right of a Christian nation to take possession of a country not Christian.

The superstition of the age is shown by the fear of the sailors of Columbus, who wanted to turn back for fear that they would reach the end of the earth; this can also be shown by comparing the voyage with Ponce de Leon's search for the fountain of youth. The number of days that it took to make the voyage across the ocean may be compared with the time that it requires for the swiftest vessels of the present age to cross the Atlantic; also, the direction Columbus sailed across the ocean, the knowledge he had of the form and size of the earth, and the belief that he had reached the Indies, show the greater advancement in science the present age has made over the age of Columbus.

(b) Non-essential relations.

Though these relations are the subordinate ones, yet, since we wish to see the object in all its prominent relations, they also should be mentioned.

1. Time relations.

Starting on the voyage August 3, 1492; landing at San Salvador, October 12, 1492; sailed on return voyage, January, 1493; arrived in Spain in March, 1493.

2. Place relations.

Starting from Palos; sailing on the Atlantic Ocean past the Canary Islands; sailing to Cuba and Hayti; meeting king John of Portugal in the Tagus River.

3. Relation of means.

Columbus' appeal to his own country; his appeal to Portugal; his appeal to Spain, and his receiving aid from the queen of Spain.

Besides the above named relations other subordinate relations could be mentioned.

H.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

TESTS.

TESTS should be given frequently. Each pupil should be tested. It is the business of the teacher to know the progress of each pupil. He must reach the individual pupil. To enable him to do this, he must know his peculiarities—his strong points as well as his weak ones. To save time and yet accomplish the foregoing, these tests are given to the school as written work. All answer the same set of questions at the same time. The papers are examined afterwards by the teacher and percented or otherwise marked to indicate the errors. It was once the fashion to give 10 questions and mark each correct answer 10%. The questioner often labored hard to make his question consist of a number of parts that is either a half or fifth of 10, so that the ten could be easily divided among the parts of the question. The marker (teacher) then counted the parts of the question that were correct—3 out of 5—then the answer received $\frac{3}{5}$ of 10% or 6%.

Some teachers have done away with this convenient scheme of testing and marking, and have adopted another. They now mark an answer C, if it is correct, and $\frac{1}{2}C$ if half correct, $\frac{2}{3}C$ if two-thirds correct, and so on. They do not believe in percents. O, no! One of these schemes is just as bad as the other. The *marking* of a paper is *not* the important thing for the teacher to consider. The careful examination of it for the purpose of getting an insight into the working of the pupil's mind is *the important* thing to consider. Is the pupil inaccurate in his computations? Does he lack a knowledge of facts? Does he fail to use the facts in his possession, and in consequence form wrong conclusions? are questions that should be ever present while the teacher is examining the work of the pupil.

WRITTEN LESSONS.

These should be such as to test the pupils on points indicated by the foregoing questions. The following problem was given a class working in measurement of solids: If you wished to ship to a customer 50 books 8 x 6 x 2 inches, what size box would you order made?

Many curious answers that were arithmetically correct, were given to this problem. They showed a lack of judgment. A business man would

say, a lack of common sense. Every teacher knows that these children have common sense, but they have not yet learned to use it. Among these answers were the following:

"I would have the box made 400 inches long, 8 inches wide, and 2 inches deep."

This box, it will be seen, would hold the books, in good shape too. The teacher suggested to the pupil that a box 400 inches long would be $33\frac{1}{3}$ feet in length, and that would be longer than the school room; that such a box would be rather troublesome to handle in cars and express wagons. The pupil who gave it, a bright girl, was laughing immoderately by this time, and the school joined in the chorus, not because she was the only one who had given a ludicrous answer, but because nearly all had. There was only one sensible answer in the school.

Another answer was 3 in. x 4 in. x 400 in. This had an additional objection; the books would have to be pulverized to get them into such a box. They were 6 in. wide but the box was only 4 in. wide; the books 2 in. thick while the box was 3 in. deep. The pupils soon saw that a box that shape would not hold a single book, although it contained as many cubic inches as the books.

What should this suggest to the teacher? Not that his school has no sense, not that he is a failure; but that they have not yet formed a habit of taking in the conditions of a problem and thinking about them; that his pupils are inclined to work by sample, i. e., do as they have been doing. There is nothing strange about this. Everybody is inclined to do this way and will do so if he does not learn to watch himself. When he learns this he will then be inclined to watch himself—to "think before he leaps." What shall the teacher do? Scold the pupils? No. Make fun of them, tell them they don't think? No. They know that now. Show them how to do that problem? Yes. Then have them "make it up"—i. e., solve it and bring it to the teacher and let him mark it? No, no. Show them how to do it by leading them to see the objection to the answer they gave. Let them try to overcome these objections, then have the problems brought to the teacher, not to mark, but to see if the conditions of the problem, expressed and implied, are fulfilled. In case they are not, give further suggestion—something that will give the pupil something to think about. Let him try again, and again.

The class may not finish ten problems every day, but what if they only

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 ...he gain the power to think, he has done well.
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BY SAMPLE.

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Let us think of the kind of problems, in this subject, we have been
 giving to our pupils. Here is a typical one: An agent received \$309
 from his employer. How many dollars' worth of flour should he send
 to his employer after deducting his commission of 3%? Every one knows
 that the solution for the preceding problem is correct for this one. No
 pupil, or very few, would miss this one. Why? Because it is like those
 they have had, and they have fallen into the habit of solving by sample.
 They saw \$309, 3%, and the phrase "after deducting his commission,"
 in the first problem; also that 309 would "exactly" contain 103, so they
 inferred that it was just like the kind they had been solving.

This class should have a surprise every day for a long time. A "stray"
 problem should be slipped in. They should form the *habit* of solving
 problems upon principle instead of by sample.

Many of these pupils do not see why the problem is wrong when the
 teacher tells them by word or *mark* that it is. Many pupils "make up"
 what they have missed by doing the problem the way it was explained
 in the recitation. It was explained by saying that "I found 3% of \$309,
 which is \$9.27. I subtracted this from \$309, which gave me \$299.73,
 the amount to be sent the employer." The teacher says, "Correct."
 The pupils have exchanged papers or slates, so 10, or C, or some other
 mark is placed on each correct answer, and o or a cross is placed on
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say, a lack of common sense. Every teacher knows that these children have common sense, but they have not yet learned to use it. Among these answers were the following:

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What should this suggest to the teacher? Not that his school has no sense, not that he is a failure; but that they have not yet formed a habit of taking in the conditions of a problem and thinking about them; that his pupils are inclined to work by sample, i. e., do as they have been doing. There is nothing strange about this. Everybody is inclined to do this way and will do so if he does not learn to watch himself. When he learns this he will then be inclined to watch himself—to "think before he leaps." What shall the teacher do? Scold the pupils? No. Make fun of them, tell them they don't think? No. *They know that now.* Show them how to do that problem? Yes. Then have them "make it up"—i. e., solve it and bring it to the teacher and let him *mark it*? No, *no*. Show them how to do it by leading them to see the objection to the answer they gave. Let them try to overcome these objections, then have the problems brought to the teacher, not to mark, but to see if the conditions of the problem, expressed and implied, are fulfilled. In case they are not, give further suggestion—something that will give the pupil something to think about. Let him try again, and again.

The class *may* not finish ten problems every day, but what if they only

finish one in ten days? We teach for power, not for problems. If by spending ten days on one he gain the power to think, he has done well. But it will not take ten days. The class may go slowly for a while, but they will gain in their power to think carefully.

SOLVING BY SAMPLE.

Another problem that deceived another class is as follows: "An agent collected for his employer \$309. How much should he remit to his employer after deducting his commission of 3%?" The majority of the class gave the following solution: $\$309.00 \div 1.03 = \300 , Ans.

Why do they do this? is a question that should present itself to the teacher. It is his business to find an answer to it. Such things happen frequently in schools taught by teachers who hold a *first-class* license too. The license has nothing to do with the matter, however, but the *teacher* has.

Let us think of the kind of problems, in this subject, we have been giving to our pupils. Here is a typical one: An agent received \$309 from his employer. How many dollars' worth of flour should he send to his employer after deducting his commission of 3%? Every one knows that the solution for the preceding problem is correct for this one. No pupil, or very few, would miss this one. Why? Because it is like those they have had, and they have fallen into the habit of solving by sample. They saw \$309, 3%, and the phrase "after deducting his commission," in the first problem; also that 309 would "exactly" contain 103, so they inferred that it was just like the kind they had been solving.

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when all are thus explained and marked they are passed back to the pupils who did the work, when each sees what he is to "make up."

Would it not be better to ask the pupils something like the following? Upon what is commission computed? Ans. Upon the amount of money collected or paid out by the agent. Did he collect \$309? Did you get 3% of \$309 when you divided by 1.03? No, sir. The pupil now knows why his work is wrong. It will not help him any in this kind of thinking, to multiply 309 by .03. He may need this sort of practice for another purpose. If he does, give it to him, but do not let him think he is doing it to learn how to solve "thought" problems.

QUICK WORK.

Tests should be given to ascertain whether the pupil is ready and accurate in the mere mechanical part of arithmetic. There are some things that one needs to recall instantly upon demand. The cultivation of this power should not be neglected in school. The multiplication table is valuable for this kind of work. Addition is a process that serves the same purpose. $5 + 4$ should call up 9 as readily as c-a-t calls up cat. Test the pupils with such as follows: Dictate as you would pronounce the words of a spelling lesson. Have the pupil writhe the answers only—

I.	II.	III.
(1) $6 + 7$	854	Write in figures seventy thousand seven.
(2) $33 - 7$	376	
(3) $43 - 7$	785	
(4) 9×8	456	
(5) 8×7	555	
(6) $\frac{1}{3}$ of 39	556	IV.
(7) $29 \div 3$	752	George paid 50 cts. for a Reader and sold it for $\frac{1}{4}$ less than it cost; for what did he sell it?
(8) $\frac{1}{4}$ of 23	596	
(9) $39 + 28$	756	
(10) 6×9	456	

GENERAL INFORMATION.

A TRIUMPH OF PHOTOGRAPHY.—A photograph has just been made of an oil well after the explosion of a glycerine torpedo in it. The successful experiment was made at Warren, Penn. The instrument was let down to the bottom of a seventeen hundred ft. well, which had been subject

to a torpedo explosion. When the camera touched bottom a bright electric flash lit up the cavity, impressing a perfect picture on the negative. A cavity fourteen feet broad and seven feet deep below the oil sand was revealed. One year ago such an experiment would have been thought impossible.

THE CITY OF WINCHESTER.—This city can rightly boast of its antiquity. Five years ago the seven hundredth anniversary of the mayoralty was celebrated. In 1893 the cathedral will celebrate the eight hundredth anniversary of its consecration by Bishop Wakelin, in 1093. The city has a history illuminated with past grandeur, feudal customs, ecclesiastical splendor, civil liberties, picturesque tradition and anecdote. It was once the capital city of England, the royal seat of Alfred, and long the chief city of the realm, until London outstripped it in the race for pre-eminence.

PROF. HEILPRIN and F. E. Baker, representing the scientific expedition sent out from the Philadelphia Academy of Natural Sciences, have made a successful ascent of the mountain Iztaccihuatl, near the City of Mexico. This is the third recorded ascent of this mountain, and the first by a scientist. The barometer measurements indicate an absolute elevation of 17,150 feet. A glacier two miles long was found to descend the western slope of the mountain, the first glacier recorded as existing in Mexico. On the summit the thermometer registered 28°. Butterflies were found imbedded in ice at an elevation of 15,500 feet.

AREA OF THE UNITED STATES.—The total area of the United States is 3,025,606 square miles, divided as follows among the various states and territories:

Alabama,	52,250	Missouri,	69,415
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Colorado,	103,925	New Hampshire,	9,305
Connecticut,	4,990	New Jersey,	7,815
Dakota,	149,100	New Mexico,	122,580
Delaware,	2,050	New York,	49,170
District of Columbia,	70	North Carolina,	52,250
Florida,	58,680	Ohio,	41,060
Georgia,	59,475	Oregon,	96,030
Idaho,	84,800	Pennsylvania,	45,215
Illinois,	59,650	Rhode Island,	1,250

Indiana,	36,350	South Carolina,	30,570
Indian Territory,	64,690	Tennessee,	42,050
Iowa,	56,025	Texas,	265,780
Kansas,	82,080	Utah,	84,970
Kentucky,	40,400	Vermont,	9,565
Louisiana,	48,720	Virginia,	42,450
Maine,	33,040	Washington,	69,180
Maryland,	12,210	West Virginia,	24,780
Massachusetts,	8,315	Wisconsin,	56,040
Michigan,	58,915	Wyoming,	97,890
Minnesota,	83,365	Unorganized territory,	5,740
Mississippi,	46,810	Delaware Bay,	620

Of the above area 56,500 square miles is water surface.

THE PAN-AMERICAN CONGRESS.—This Congress recommended that the Republics of North, South, and Central America, and Hayti, unite in a treaty which shall provide for the settlement of all disputes among these nations by arbitration. This is a step in the right direction, as it seems to us. International as well as personal quarrels should be settled without resort to arms.

They also discussed an international dollar, but this is turned over to a new congress of monetary experts.

A continental railway was discussed. It is said that a route for such a road will soon be surveyed. If found practicable the road is a thing of the near future. We may yet visit South America by rail.

Before declaring the adjournment of the congress Mr. Blaine made a few remarks, from which we select the following:

*"Gentlemen—*I withhold for a moment the final adjournment of the International American Conference, in order that I may express to you the profound satisfaction which the Government of the United States feels at the work that has been accomplished by the International Conference. The importance of the subjects which have claimed your attention, the comprehensive intelligence, and watchful patriotism which you have brought to their discussion, must challenge the confidence and secure the admiration of the governments and peoples who recognize that the patriotism which constitutes the fraternity of nations has received from you an impulse such as the world has not before seen.

"The extent and value of all that has been worthily achieved by your conference can not be measured to-day. We stand too near it. Time

will define and heighten the estimate of your work; experience will confirm our present faith; final results will be your vindication and your triumph. If, in this closing hour, the conference had but one deed to celebrate we should dare to call the world's attention to the deliberate, confident, solemn dedication of two great continents to peace, and to the prosperity which has peace for its foundation. We hold up this new magna charta which abolishes war and substitutes arbitration between the American Republics, as the first and great fruit of the International American Conference. That noblest of Americans, the aged poet and philanthropist, Whittier, is the first to send his salutation and his benediction, declaring: 'If in the spirit of peace the American Conference agrees upon a rule of arbitration which shall make war in this hemisphere well-nigh impossible, the session will prove one of the most important events in the history of the world.' "

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This is a new Department, and is edited by W. N. HALLMAN, Supt. of the La Porte Schools.
He is also the author of several educational works.]

FRACTIONS.

THE treatment of fractions involves no new arithmetical operations. Heretofore the child is supposed to have been dealing with units, with ones. In fractions he deals with parts of units, it is true; yet the arithmetical operations of addition, subtraction, multiplication, and division remain the same. The addition of two *ninths* and five *ninths*, and the multiplication of two *ninths* by four, so far as the mere arithmetical operation is concerned, offers no difficulty that is not found in the addition of two *ones* and five *ones*, and the multiplication of two *ones* by four.

Whatever new difficulty the treatment of fractions may involve lies not in the arithmetical processes, but in the relation of the fraction to the unit, in the fact that the fraction has no value in itself, but only in the unit from which it is derived. It is the necessity of keeping this relation constantly in mind that renders the intelligent treatment of fractions more difficult.

This difficulty is particularly manifest when integers and fractions are involved in the work. When the child multiplies 3 by 2 he obtains 6; i. e., uniting two groups of three "things" he obtains six "things." On the other hand when he multiplies $\frac{3}{4}$ by 2, he obtains as his final result

1 $\frac{1}{2}$. After uniting the two groups of three fourths into six fourths, he must separate these—keeping in mind the relative value of the fourths—into two groups of $\frac{1}{2}$ (or, 1) and $\frac{1}{2}$; and, not satisfied with this, he must recognize the equivalence of $\frac{1}{2}$ and $\frac{1}{2}$ and fix the mind on the latter, because simpler, relation.

It is evident from these considerations that the work of finding a certain portion of a number of units, e. g., $\frac{1}{4}$ of 8, does not reach these difficulties, that, in fact, it involves no true fractions. In this problem the child simply separates the eight ones into four equal groups and realizes that in one of these groups there are two ones. As soon as he has accomplished this he dismisses from his mind the fractional relation. When he is asked to find the value of three-fourths of eight he sees no longer the fractional value but only the three twos which he unites into six.

For true fractional work and in order to overcome the difficulties mentioned above, the pupil must deal with true fractions, *parts of one*. It is needless to add that, here too, his idea should rest on actual experience, that he should go from the thing to the thought.

For this purpose he should receive a whole, a unit, and himself, under proper directions, divide it into parts or fractions. The selection of material for this purpose is an important matter. Apples are too varied in size and too irregular in shape to furnish accurate notions. Besides, the eating of the parts is a matter of so much interest to the children, that to transfer their attention from this to the intellectual consideration of fractional relations implies an uncomfortable amount of mental friction. Similar objections apply to pies, sticks of candy, and other eatables.

Prepared colored discs cut into a number of parts—like Bradley's "colored sectional circles"—, are of questionable value. The four quadrants—e. g.—come to the child as *four* things, four *whole* quadrants, four *ones*. He may make a circle of them, and break this up again into the four quadrants, and do these things repeatedly, and fail utterly to overcome the *wholeness* of the quadrants and the *composite* character of the circle. In other words, his mind will refuse to see the circle as the true unit and the quarter as a true *fractional* fourth.

When, in addition the sections are of different colors, the confusion is increased; and the mental construction of the simple unit from which these gay sections are derived is indefinitely postponed.

These difficulties can be obviated by placing into the hands of the child some unit, some *whole* one which he may break or tear or cut into fractions with the least possible opportunity of arousing hostile interests.

Paper circles, paper squares, and paper strips will be found most suitable for this purpose. The pupil can by means of folding indicate the desired divisions quite accurately, and readily cut or tear them into the required number of fractional divisions.

Of these the paper circles are least satisfactory. The semi-circles, quadrants, sextants, etc., that result from their subdivision differ so materially in form from the original circle, that the interest aroused by these differences in form has to be dissipated before the pupil's mind can give itself profitably to the fractional relations. In the reconstructive work, too, there arise difficulties from the peculiar form features, that the pupil is compelled to withdraw much of his attention from the fractional relations, in order to overcome these difficulties.

In all of these respects the square sheet of paper is much less objectionable; although, here, too, the form features are quite varied and prominent. The paper-strip about twenty or twenty four inches long, is almost wholly free from all these objections. All subdivisions produce simply smaller strips. There are scarcely any changes in form; the changes are exclusively changes of quantity.

It has been found, therefore, that the paper-strip affords the most satisfactory device for introducing the methodical study of fractional relations. Subsequently, indeed, the square and circle come in good place for certain purposes; as will be shown later on.

It will be the burden of my next article to indicate in what manner and for what particular purposes these materials may be profitably used.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

YOU WOULDN'T THINK IT, but *it is a fact*.

What's a fact?

That a few teachers who promised to pay Jan. 1, have not paid yet!

IF the person who wishes the address of his Journal changed to San Pierre will write again and give his present address and his name, we will be glad to accommodate him.

THE *Indianapolis News* recently offered a premium of \$25.00 to the person who should name the five greatest battles of the Civil War. Seven thousand eight hundred persons sent in answers, and Gen. McGinnis, Gen. Knefler, and Col. Black of Indianapolis were the judges. A. E. Miller named Gettysburg, Champion Hill, Nashville, Chattanooga, and Five Oaks, and got the prize.

[**THE LAST CHANCE.**—Any subscriber to the Journal who will send in a new subscriber, with \$1.25, club rate, *before* July 1, will get as a premium "THE EVOLUTION OF DODD." This is the story of a boy's life, giving both his home and school experiences, and is worth many times its price to any teacher, for its valuable hints, suggestions, and lessons. It is a work on pedagogy, put in story form. This proposition ends with July 1.

ANY one interested in the sick-benefit, funeral-aid, and death-beneficiary associations of the United States can help make the statistics of their organizations for the forthcoming census more complete and disseminate the knowledge of the good work they are doing by sending the names of such societies as they may know of, and the address of their principal officers, to Mr. Chas. A. Jeany, Special Agent of the Eleventh Census, 58 William St., New York City.

IN WAYNE COUNTY, where a majority of the township trustees are Republicans, B. F. Wissler, a Democrat, is county superintendent. This proves two things: 1. That Mr. Wissler is a good man for the place. 2. That the trustees have good sense and moral stamina, and ignore politics in making this important appointment. It is a great pity and a great shame that trustees in more of the counties can not rise above their partisan prejudices in making educational appointments.

HIGH-SCHOOL PROGRAMS.—We wish to acknowledge the receipt of numerous programs and notices of high-school commencements. Many of these programs are works of art and good taste. We regret that the number is so great that we can not find space to mention each separately. We are glad to note that in some instances the teacher has taken the matter in hand and had the boys and girls select themes for their graduating exercises that they know or can learn something about—so that these performances may be in some true sense original.

EARLY APPOINTMENTS.—The Journal wishes to again urge upon trustees and school boards the necessity of making their appointment of teachers for next year at the earliest practicable date. This is due the teachers. If the teacher has done satisfactory work it is due him, and at the same time it is in the interest of the school that he be re-appointed. Faithful work gives a teacher, in sense, a *right* to re-appointment. Early appointments are desirable so that teachers may know what to depend upon. If a teacher is to have a place he ought to know it, and if he is not to have it, he ought to know it. There are a score of arguments in favor of early appointments and not one in favor of late ones.

KILLED BY CIGARETTES.—The associated press dispatches contain the following striking hygienic lesson. It will prove good reading for morning exercises. Don't spoil it by making a speech.

"NEW YORK.—Samuel Kimball, a 16-year-old member of the choir of St. Mary's church, Brooklyn, died on Friday last at St. John's hospital. The boy was a constant cigarette smoker, and when brought to the hospital from home was suffering from a dropsical condition of the legs and weak condition

the heart. The hospital doctors said that his system had been so thoroughly impregnated with nicotine that the heart was unable to perform its proper functions."

THE American Association for the Advancement of Science will hold its 39th meeting in Indianapolis, beginning August 19. This is a meeting of great importance and continues in session an entire week. Indiana should feel honored in having such a body of learned people as its guests, and spare no effort to make the meeting a great success. Teachers can doubtless gain much by attending these meetings, and hundreds should visit Indianapolis at that time and take advantage of this rare opportunity.

"PLEASE CHANGE the address of my Journal to this place." This request is made time and time again, and without giving the "old" address. To find the old address involves a search through *seven thousand* names, and is a task too great to be undertaken, when it can easily be avoided. Let me repeat what has been said a hundred times before:

In asking to have the address of your Journal changed, please do not forget to give the old as well as the new address.

Also remember to ask for change of address *before* the 25th of the month, when the mailing list is made up.

Also remember that post-masters are not likely to forward your Journal unless you *pre-pay* the postage, as the law requires.

AN OBSOLETE DICTIONARY.

The old edition of Webster's Dictionary for 1847, has been reprinted by a cheap process, and the book has been bound in a cheap style and is sold for about \$2.00. As the book is as large as the present edition of Webster, and to the uninstructed is about as desirable, unscrupulous agents represent the antiquated book as "substantially the same as the present edition."

While it is true that *most* of the words in the language are spelled and pronounced just as they were forty years ago, it is also true that there have been thousands of new words added. The language is growing with the race and it changes and increases every year, and the dictionary is of use chiefly as a guide to the new words and later changes.

Any one who wants a dictionary at all wants the latest—he wants to be sure he can rely upon it.

THE AMERICAN BOOK COMPANY.

The above-named company, as stated in last month's Journal, is composed of A. S. Barnes & Co., Van Antwerp, Bragg & Co., D. Appleton & Co., and Ivison, Blakeman & Co. This is not a syndicate or trust, but a legally chartered company, owning in fee simple the entire school-book plants of the four firms named. So much the Journal stated last month. A later phase of the

matter is as follows: Harper & Brothers, whose school-book list was perhaps equal in size and merit to any one of the combined firms, refused to enter the co-partnership, but offered to sell out their school-book interest to the new house. This sale has been made, and it gives to the great firm control of at least *eighty percent* of all the books used in the United States in the schools below the high schools.

Another thing this new company has done is of peculiar and special interest to Indiana. The Indiana School-Book Co., which supplies the Readers, Arithmetics, and Geographies, by contract under the new school-book law, does not own the copy-right or plates of the books it furnishes, but gets them ready for use from the publishers. Now, the new company has bought the plates and copy-rights of the Indiana books, so that hereafter the Indiana School-Book Co. will have to buy all its books from the American Book Co. This will not affect in any way the contract of the Indiana Company with the state. The books will be supplied at contract prices and of standard quality.

The final effect of this deal on the school interests of Indiana can not now be told. Two things it is likely to bring about are these: 1. The Indiana Co. and its special friends will hardly feel at liberty to berate the old companies in their new form and new relations and apply to them all the hard epithets in the category of criminal literature.

2. The old companies will hardly feel at liberty to describe as utterly and everlastingly worthless the Indiana books, which they now own. If this new arrangement shall have the effect to take this text-book question out of politics, so that the law and the books can be discussed and dealt with on their *merits* it will certainly be a consummation devoutly to be wished.

The effect upon prices of putting under one control four-fifths of all the school books of the country, the future will have to answer. The company itself claims that the union has been in the interest of economy and lower prices, and the Journal has no ground upon which to doubt the statement. (For a fuller statement of the company's purposes see its advertisement.)

As an evidence that the American Company expects to treat all other companies in an honorable and fair way, it has entered into an agreement with many of them not to put out each other's books by even exchange or cutting prices etc.: the same arrangement that existed before between the old companies.

NATIONAL EDUCATIONAL ASSOCIATION.

Everything looks favorable for a large meeting at St. Paul in July, and it is to be hoped that Indiana will be well represented.

As the Journal has heretofore stated, all the railroads will sell tickets at half rates; i. e., a single fare for the round trip, plus \$2.00, which pays the annual fee to the Association, and secures the bound volume of "proceedings." The fare from Indianapolis is \$16.50 + \$2.00 = 18.50, all told. So far there has been no arrangements made for privilege to stop over at any points either going or returning, but it is generally true that a person can stop over for at least twelve

hours at points where there is a change from one system to another; for example, Chicago. There is no arrangement by which a person can go over one road and return over another of a different system.

It has not been thought wise to name a hotel as head-quarters for Indiana teachers, for the reason that many prefer to stop with private families and others prefer to go to the largest hotels so that they will there come in contact with the leading educators from other states. However, a room has been set apart in the State House as "Indiana Head-quarters," which will serve as a rallying point. It will be best for every one to engage a stopping place in advance if possible. If you will write at once to L. J. Dobner, Hotel Ryan, St. Paul, Minn., and tell him what kind of entertainment you wish, and how many there are in your party (if you are in a party), and name the price you wish to pay, he will make an assignment and you can have your boarding place secured before you leave home. This plan will save great confusion and annoyance when you arrive at St. Paul.

The C. B. & Q. seems to be the favorite railroad with the Indiana teachers, because it runs for so many miles on the bank of the great Mississippi River, and the scenery along this part of the upper Mississippi is said to be very fine indeed.

Remember the date. The National Council will meet July 4, but the main Association does not open till the evening of July 8.

Tickets are good returning till September, and many attractive excursions have been planned from St. Paul.

For further railroad information see the advertisements of the different roads elsewhere in the Journal; and for information not found in the Journal write to the editor, or to W. W. Parsons of Terre Haute, W. N. Hailman, La Porte, J. T. Merrill, La Fayette, A. J. Graham, Columbus, Dr. John S. Irwin, Fort Wayne, B. F. Wissler, Cambridge City, or Jesse H. Brown, Indianapolis.

The trip will well repay any teacher, independent of the Association.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN APRIL.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

U. S. HISTORY.—1. Write the history of the development of religious toleration in this country from the founding of Jamestown till the present time, showing as well as may be the marked changes or epochs; or the history of the

when all are thus explained and marked they are passed back to the pupils who did the work, when each sees what he is to "make up."

Would it not be better to ask the pupils something like the following? Upon what is commission computed? Ans. Upon the amount of money collected or paid out by the agent. Did he collect \$309? Did you get 3% of \$309 when you divided by 1.03? No, sir. The pupil now knows *why* his work is wrong. It will not help him any in this kind of thinking, to multiply 309 by .03. He may need this sort of practice for another purpose. If he does, give it to him, but do not let him think he is doing it to learn how to solve "thought" problems.

QUICK WORK.

Tests should be given to ascertain whether the pupil is ready and accurate in the mere mechanical part of arithmetic. There are some things that one needs to recall instantly upon demand. The cultivation of this power should not be neglected in school. The multiplication table is valuable for this kind of work. Addition is a process that serves the same purpose. $5 + 4$ should call up 9 as readily as c-a-t calls up cat. Test the pupils with such as follows: Dictate as you would pronounce the words of a spelling lesson. Have the pupil writhe the answers only—

I.	II.	III.
(1) $6 + 7$	854	Write in figures seventy thousand seven.
(2) $33 - 7$	376	
(3) $43 - 7$	785	
(4) 9×8	456	
(5) 8×7	555	
(6) $\frac{1}{3}$ of 39	556	IV. George paid 50 cts. for a Reader and sold it for $\frac{1}{4}$ less than it cost; for what did he sell it?
(7) $29 + 3$	752	
(8) $\frac{1}{8}$ of 23	596	
(9) $39 + 28$	756	
(10) 6×9	456	

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4. What is the difference between an original and an acquired sense-perception? Give an example of each.
5. What means of cultivating the senses are recommended by Frœbel and Pestalozzi?
6. What is meant by association of ideas? Give an example.
7. What use can be made, in teaching, of the principle of association?
8. Why is it a sound educational principle that in learning the pupil must go from the known to the most closely related unknown?
9. A pupil can not answer the teacher's question; the teacher puts it in an easier form, perhaps partially suggesting the answer. What objection, if any, to this?
10. What would be your general plan for teaching spelling?

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. What is a gusty wind?

2. What is "the loosening drift"?
3. Where was the sun? Why?
4. Why is the air called savage?
5. Does the wailing of the wind add to the feeling of solitude?
6. How must *wind* be pronounced in the tenth line?
7. Explain "the mindless wind."
8. Do the tree-tops really moan?
9. What was the sound of the sleet like?
10. What does the whole verse describe?

HISTORY.—Many of the colonies were formed with a view of universal toleration in religious matters. The Puritans of New England fled from their homes and sought dwelling-places on the bleak shores of the Atlantic that they might enjoy religious freedom. French Huguenots, Scotch Covenanters, and German Lutherans settled the Carolinas and Georgia and mingled with each other without any difficulty. Lord Baltimore founded the colony of Maryland as an asylum for persecuted Catholics. Pennsylvania was founded by the Quakers on the principle of brotherly love. The only places in the colonies where people were persecuted for religious opinions were Massachusetts and Virginia. Roger Williams led a colony from Massachusetts into Rhode Island and founded a home for people of any faith or sect. The colonies induced many to leave their homes in the Old World and cast their lots in America, where they could worship according to the dictates of their own consciences.

Thus, freedom in religion became one of the predominant principles of the colonies. Virginia and Massachusetts were finally obliged to yield to the conditions allowed in other parts of the English domain in America. Liberty in religion and politics have grown hand in hand. First existing in the hearts of the people, these principles of freedom have become engrafted in the laws of the states and of the nation.

ARITHMETIC.—1. A common fraction may have any number for its denominator which must always be expressed: a decimal fraction can have only *ten* or some power of ten for its denominator, which is generally indicated by the position of the decimal point.

3. By proportion: $\frac{1}{2} : 9 \left\{ \begin{array}{l} \frac{1}{2} : 9 \\ \frac{1}{2} : 9 \end{array} \right\} :: 16 \text{ horses} : 40 \text{ horses, Ans.}$

4. 100% = list or selling price.

$$20 = 20\% \text{ off.}$$

$$\frac{80\%}{8\%} = 10\% \text{ off.}$$

$$72\%$$

$$3.6\% = 5\% \text{ off.}$$

$$68.4\% = \text{cost.}$$

$$100\% - 68.4\% = 31.6\% = \text{gain.}$$

$$31.6\% \div 68.4 = 46\frac{3}{4}\% = \text{rate of profit.}$$

5. The proceeds of \$1.00 for 93 days at 8% is \$.979 $\frac{1}{2}$. $\$73.25 \div .979\frac{1}{2} = \74.795 , the face of the note.

6. 106 tons, 2 cwt., 3 gr., 10 lbs. = 106.1425 tons. $\$30 \times 106.1425 = \3184.275 , Ans.

7. $\$8960 \div \$640000 = .014 = 1\frac{2}{5}\%$ = the rate of taxation. $\$102.90 \div .014 = \7350 , Ans.

8. $\frac{1}{3}$, $\frac{2}{5}$, and $\frac{3}{8}$ have the same ratio as 40, 72, and 105. Then,

$$\frac{1}{3} \text{ of } \$692.23 = \$127.60, \text{ first part.}$$

$$\frac{2}{5} \text{ of } \$692.23 = \$229.68, \text{ second part.}$$

$$\frac{3}{8} \text{ of } \$692.23 = \$254.95, \text{ third part.}$$

SCIENCE OF EDUCATION.—1. Consciousness is the power by which the mind knows its own states and actions. It is that attribute of the mind by which it is aware of what it feels and does. The mind not only acts but it is conscious of its own actions. This is simple consciousness. But the mind does *more* than this. It not only knows its own state and actions, but it knows *itself* to be the author or basis of these actions. It is conscious of *self* as the subject or background of these actions. States and actions come and go, but the conscious self remains. This recognition of self is self-consciousness.

2. Sense-perception is the faculty of the mind by which we gain a knowledge of external objects through the senses. It is the power of cognizing the external objects and their qualities. It differs from consciousness in that it refers to external objects while consciousness refers to the actions of the mind itself.

3. The design is to enable pupils to acquire definite and correct ideas of things; to enable them to store their minds with self acquired knowledge; to lay the foundation for literary or business success; to enable them to depend upon themselves; and to add to their own happiness and the happiness of those around them.

4. An original sense-perception is that which is given by a single sense when used alone. An acquired perception is the knowledge given directly by one sense, in connection with another. I see an orange; I know it is an orange by

the sense of sight; this is an original sense-perception. By experience I know the orange is sweet, although the flavor is not a perception of the sense of sight. This knowledge of the flavor of an orange from its sight is an acquired sense-perception.

5. Froebel and Pestalozzi both strove to cultivate and develop the perceptive faculties of their pupils by the study of objects, such as balls, cylinders, cones, cubes, sticks, mats, etc. The study of these was to develop the ideas of form, size, color, number, forms of beauty, etc.

6. Nearly every idea or thought that arises in the mind is connected in some way with some previous thought or idea. The connection may be either immediate or remote. The mental product previously in the mind is supposed to be the cause or occasion of the thought now present in the mind, and this law by which one thought is liable to awaken some other related thought or idea in the mind is called the law of association of ideas. However it does not follow that the same thought will always call up the same related idea. As an example, the name of Lincoln may suggest the name of his assassin.

7. This law of association of ideas is a great aid to the memory. In teaching history important facts and dates can often be so grouped together as to greatly aid in recalling them or retaining them in mind. The ideas of time and space, cause and effect, should be grouped together in the mind, one aiding or recalling the other.

8. As the mind naturally groups together related ideas, and as this is a law of the mind's action, the mind of the pupil can best be led from the known to the *related* unknown. Any educational principle that follows the laws of the mind's action is sound, and is sound in just the degree that it follows these laws.

9. Generally a question *should* be put in the easiest or simplest way, or in a way that the meaning of the question is plain and not obscure. But if the question is to be a test of the pupil's knowledge it should not be so suggestive as to give a key to the answer desired. If the question is intended to instruct or aid the pupil to understand some difficulty it may with propriety be suggestive, and ought to be so.

10. A judicious combination of written and oral spelling. An occasional change in the manner of recitation is useful. Spelling upon slates or blackboard and criticisms upon the work of others is good. Forming sentences containing certain words, teaches their correct spelling and use.

GRAMMAR.—1. When a word, phrase, or clause depends upon some leading word, phrase, or clause, and does not make complete sense when standing alone, it is said to be subordinate.

2. This is a compound sentence, composed of two coordinate clauses or members. Of the first *thou* is the subject, *art* the copula, and *master* the predicate. *Master* is modified by the phrase *of word*, word by *thy* and *unspoken*. Of the second number, *word* is the subject, *is* the copula, and *master* the predicate. *Word* is modified by *thy* and *spoken*. *Master* is modified by the phrase *of the*.

6. (a) The clause here is an adjective element modifying animals.
 (b) An adverbial element used to modify speaks.
 (c) That the earth does move, is used as the subject of the sentence.
7. (a) *Where* in this sentence has the nature of a pronoun representing the noun place; it also has the use of an adverb modifying the verb buried.
 (b) Here *where* is used as a conjunctive adverb, connecting the two clauses and modifying the verb in each.
9. *To be promoted* is a verb, in the infinitive mood, passive voice, present tense, and used as a noun in the objective case, the object of the verb *hopes*.
10. The necessary elements are two, the object or thing thought of, and what is thought of it. The first is the subject of the thought or sentence; the second is the thing predicated of the subject, and is called, therefore, the predicate.

GEOGRAPHY.—1. The region immediately surrounding Yellowstone Lake in Wyoming has been set aside by act of Congress and exempted from sale, being reserved as a public park. It is remarkable for its wonderful scenery, its lakes, canons, geisers, hot springs, mud volcanoes, etc.

2. Switzerland is a confederation of twenty-two republican states called cantons.

4. The most extensive and valuable coal deposits are in Pennsylvania, although vast quantities are found in many other states. Coal is thought to be formed from the vegetable remains of the carboniferous age. It is doubtless of vegetable origin.

7. When the north pole of the earth is inclined *toward* the sun it is summer in the north hemisphere, and the south pole being at the same time inclined *from* the sun it is winter in the south hemisphere. Just now the north pole is inclined *from* the sun when the earth is in perihelion, and *toward* the sun when in aphelion; but owing to a slow motion of the major axis of the earth's orbit about the sun, this condition will not be permanent.

PHYSIOLOGY.—1. In the mouth the substances are thoroughly mixed with the saliva and reduced to a soft pasty mass, ready to be acted upon by the gastric juice. In the stomach the albumen of the bread is dissolved and changed into albuminose and the whole mixture reduced to a liquid form. In the small intestine the starch of the bread is converted into sugar by the action of the intestinal juice and is ready to be absorbed. The fat globules of the butter are acted upon and broken up by the pancreatic juice and are ready for absorption by the villi of the intestine. The sugar is reduced to a liquid form and absorbed with the sugar formed from the starch of the bread.

7. The eyes should not be over-worked by reading too much at night or by too close application at any time. The light should not be too strong or too dim. For one to constantly sit facing a light window in school is very trying upon the eyes. The eyes should be washed in pure water every morning.

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

Q U E R I E S .

255.

"Be thou, spirit fierce,
My spirit! Be thou me, impetuous one!"

—*Shelley.*Parse *me*.

ED.

256. Why did France cede Louisiana to Spain in 1763, and how, when, and why did she again obtain possession of it?

E. M. HANAWALT.

257. A and B have been in partnership one year; A has drawn out \$1268.00 and B \$640.97. The rent of the building is \$600; the building belongs to A. How should they settle?

GRAYDON SINCLAIR.

258. Give a definition distinguishing a mineral from a metal. A. M. M.

259. What was the "Walking Purchase" in history? WALTER COX.

260. The hypotenuse of a right angle triangle is $67\frac{1}{2}$, and the sum of the base and perpendicular is $94\frac{1}{2}$, the latter being the shorter. Find their length by arithmetic.

F. L. COWGER.

261. Analyze: "Here's to our childhood, its gold and its gray."

W. T. LONGWITH.

NOTE.—Clarence C. Custer, Logansport, will find the demonstration of the rule for finding area of triangle when the sides are given, on page 421 School Journal for July, 1888. But the expression—

$$\frac{a + b + c}{2} = 3, \text{ should be } \frac{a + b + c}{2} = S.$$

A N S W E R S .

245. Let x = No. minutes past one o'clock.

$$\text{Therefore } 2x = 5 + \frac{1}{2}x \quad (1)$$

$$\text{and } 2(60 - x) = 60 - (\frac{1}{2}x + 5) \quad (2)$$

$$\text{From (1) } x = 2\frac{1}{3} \text{ min.}$$

$$\text{" (2) } x = 33\frac{2}{3} \text{ "}$$

} Ans. T. W. MARSHALL.

246.

	(1)	(2)	(3)	(4)	(5)
	22	5	3		300
	25	2		1	100
	28	1		2	200
27	30	3	5		500

Arrange the average and the prices as in column (1); column (2) is the differences; (3) and (4) are the balance columns; each or both of these two columns may be multiplied by any number. In this case column (4) must be multiplied 100 in order to get 100 lbs. of 25¢ sugar. Multiplying both columns by 100 we get the results in (5).

247. There are two views taken of this. One, and the better, is that *stillness* is the subject. The other view is that *air* is the subject. JAS. F. HOOD.

248-249. No answers received.

250. Like is a preposition, and shows the relation between *are* and *birds*.

KATIE RASP.

251. June 3—120 \times 0 = 0 June 23—180 \times 20 = 3600
 " 27—400 \times 24 = 9600 " 22—220 \times 19 = 4180
 July 2—100 \times 29 = 2900 " 29—50 \times 26 = 1300

620 12500 450 9080
 450 9080

170 3420

3420 + 170 = 20

20 days after June 3 = June 23, Ans.

May 6—850 \times 35 = 29750 April 1—800 \times 0 = 0
 Apr. 15—470 \times 14 = 6580 May 12—600 \times 41 = 24600
 Aug. 10—640 \times 131 = 83840 July 27—350 \times 117 = 40950
 " 13—720 \times 134 = 96480 June 23—540 \times 83 = 44820
 " 19—950 \times 140 = 133000 Aug. 5—600 \times 126 = 75600

3630 349650 2890 185970
 2890 185970

740 163680

163680 + 740 = 121.

121 days after April 1 = November 8, Ans.

JOHN MORROW.

252. The prime factors of 316409 are 797 and 397; found by trial.

R. J. ALEY.

253. When the Southern states seceded, Virginia was the most important accession to the Confederacy. In the western counties there was such strong opposition to secession that these counties refused to obey the convention which passed the ordinance of secession, and chose a legislature which claimed to be the true government, and at last formed a new state, which was called West Virginia, and admitted into the Union in June, 1868. LIZZIE FLANAGAN.

254. Mt. Tacoma is in Washington, on the east side of Puget Sound.

W. W. DELZELL.

CREDITS.

Brimfield School—246-7, 253-4.

W. W. Delzell—251-2-3-4.

A. B. F.—251.

Lizzie Flanagan—253.

U. T. Neer—246.

Prof. R. J. Aley—245-6, 252-7.

E. J. Fermier—245-6-7, 251.

Walter Cox—251.

Theo. J. Freed—251.

H. Dale—239, 241, 243.

C. W. Rice—246-7.

M. Leahey—250.

Katie Rasp—247, 250.

John Morrow—246, 251.

Jas. F. Hood—246-7, 250-1-2-3-4.

No Name—247, 250-1-3-4.

T. W. Marshall—245, 253.

Calvin Asbury—246-7, 250.

"Queries and Answers" will hereafter appear every other month instead of every month, as formerly.

MISCELLANY.

WABASH COLLEGE commencement will occur June 18.

THE *fifty-first* commencement of De Pauw University will occur June 19.

THE State Association of Co. Supts. will meet in Indianapolis June 17-18.

TERRE HAUTE has let the contract for a new school building to cost \$21,450 heated.

THE Argos normal will open its third session June 2—six weeks—George A. Powles principal.

THE Review Term at Commercial College, Hope, Ind., will begin June 10. James H. Clark, principal.

THE SEYMOUR HIGH SCHOOL this year graduated twelve students—all girls. What became of the boys?

INDIANA UNIVERSITY will have the commencement exercises of its *sixteenth* college year June 11.

THE Noble county normal will open at Albion July 14, conducted by P. M. Creager and W. B. Van Gorder.

THE Bloomfield normal begins a 10-weeks session June 10, with C. Daniels and H. E. Cushman as principals.

J. C. GREGG has closed up the Brazil schools in good order, and will be retained for another year—the eleventh.

THE Southern Ind. Normal at Mitchell, headed by E. F. Sutherland, makes a cheerful report of the present term's work.

CO. SUPT. J. W. LYDY, assisted by George E. Long, will begin a normal Frankfort July 1, and continue seven weeks.

THE HAGERSTOWN high-school program for commencement exercises is "a thing of beauty." P. V. Voris is the principal.

THE NORTH WESTERN NORMAL ADVOCATE, of Wauseon, O., is a 4-column 8-page paper which contains much good reading-matter.

THE first annual report of the Waveland schools makes a creditable showing. J. B. Evans is in charge and is assisted by four teachers.

THE North Vernon summer normal began its third session May 29, for six weeks, with C. N. Peak and D. G. Fenton as instructors.

THE Lake county normal will open at Crown Point July 7—6 weeks—with F. E. Cooper, M. J. Mallery, and W. B. Swearingen as instructors.

THE INDIANA NORMAL SCHOOL at Ridgeville now numbers 110 students and its prospects for the future are flattering. J. E. Souers is principal.

HANOVER COLLEGE has just sent out its *fifty-eighth* annual catalogue. It enrolls 97 in its College Department, with 17 in the Senior Class. The institution seems to be in a prosperous condition.

THE Allen county normal will open June 30, in Fort Wayne, for a term of six weeks. Mrs. Byers, of the State Normal, has been engaged for the entire term. This county has been noted for its excellent normals, under the direction of Co. Supt. Felts.

THE NORMAL COLLEGE at Marion, Ind., will open its summer term of eight weeks, June 10. A good three-story building has been erected for this school, and its projectors have started out to make it a permanent institution, worthy of liberal patronage. A Jones is the principal.

MUNCIE shows an increase of children over last year of 600, and this does not include suburbs. Two new school houses have recently been opened. The Junior class exhibition, celebrating Indiana Authors, was a marked success. W. R. Snyder is Supt. and J. W. Carr is principal of the high-school.

THE Bowen-Merrill Book Store of Indianapolis recently burned, causing an entire destruction of the building and almost a total loss of books, but the firm immediately found temporary quarters at 18, 20, 22, 24 West Maryland Street, and are ready to meet old friends and fill all orders as of old. They will in a short time be in new and much enlarged quarters.

PRINCETON has recently added a new eleven-room building to its school facilities, and furnished it in the most approved style. Its public library is in a substantial building of its own, and contains upwards of 3000 volumes. This is a remarkable showing considering the fact that the library was entirely destroyed by fire about three years ago. Supt. A. J. Snoko has had much to do with this and deserves much credit.

IN DARKEST AFRICA is the name of Henry M. Stanley's new book. Several unscrupulous publishing houses have issued what purports to be Stanley's Explorations. Mr. Stanley himself writes: "I beg distinctly to state that the only publishers in America who have any authority to publish anything whatever of mine are Messrs. Scribner's Sons and Messrs. Harper Brothers. My new and shortly-forthcoming work, 'In Darkest Africa,' is exclusively in the hands of Messrs. Charles Scribner's Sons."

Editor Indiana School Journal:

Will you kindly find space for the following correction: In the list of the Commissioned High Schools, on page 68 of the Catalogue of the Indiana University, the name of the high-school principal at La Grange was inserted instead of that of the superintendent, Mr. A. J. Johnson. It is due to us as well as to Mr. Johnson that I should say that this mistake was wholly unintentional. It arose from a slip of the pen on the part of a copyist, and those interested in having this list correct should change it accordingly. DAVID S. JORDAN.

THAT Bay View Summer University, whose advertisement is on another page, is getting hold of many fine instructors. Among recent additions to the faculty are Miss Clara F. Robinson, teacher of Drawing in the Wisconsin State Normal School; also Dr. Samuel Willard, supervisor of History in the Chicago schools. Another still is Prof. Dixon, in Latin and Greek at De Pauw University. Thirty-

two instructors from leading colleges and schools are now in the faculty. Ba View is going to be an attractive point this summer for Indiana teachers, with whom that famous summer resort is very popular. All railroads will give reduced rates going there.

HUNTINGTON COUNTY.—The board of education passed the following resolutions, which have more than a local interest in the way of suggestions:

WHEREAS, A great number of township trustees go out of office on or before the first of August next; and, whereas, we deem it our duty to retain the good teachers in our respective corporations; now, therefore, be it

Resolved, 1. That we will retain and hire the good teachers in our corporations, and we ask the incoming trustees to coincide with us in the matter.

2. That the several school corporations are hereby assessed to pay the sum of fifty cents for each teacher employed within such corporations; said money to be used to assist in defraying the expenses of the next county institute and be paid out of the special school fund.

3. That we maintain the standard of wages heretofore paid to teachers; but we demand of our teachers better and more thorough work.

4. That the trustees require all teachers, who wish to teach in the county, to be prepared with a license on or before July 15.

The city of Huntington has just let the contract for a new school building to cost \$24,000.

THE WAYNE COUNTY board of education at its May meeting adopted the following resolutions:

1. That a committee of five, the county superintendent to act as chairman, be appointed, who shall be known as the School Supply Committee of Wayne County.

2. That such committee shall meet at Richmond during the months of June, July, and August of each year, or oftener if deemed necessary, upon call of the chairman.

3. That no article of school apparatus or other supplies, excepting fuel and building material, will be purchased except upon full endorsement of the above committee.

4. That all purchases shall be made through this committee of the manufacturers, and no deals will be made with agents, and it shall be the duty of the committee to make such purchases on the very best possible terms.

5. That this committee be instructed to invite manufacturers to place samples of their supplies with this committee for inspection, and trustees and school officials generally are requested to meet with the committee, and inspect such articles as may be presented.

6. That the trustees and members of the county board of education whose names are hereunto attached, do agree to be governed by the above resolutions.

The Supt. reported that the school officials of Wayne county had purchased \$304 worth of supplementary reading matter during the year. He urged the trustees to give supplementary reading serious attention the coming school year.

LIFE STATE LICENSES.

The State Board of Education at its late meeting granted "Life State Licenses" to the following persons: J. W. Carr, J. C. Dickerson, A. J. Dillon, S. A. D. Harry, Fannie Marble, W. H. Rucker, W. R. Stratford, and Della Straup.

It also granted to each of the following a "Professional License":

Basil D. Allen, A. H. Barber, Wm. T. Barr, W. D. Cory, Finley Geiger, A. R. Hardesty, Will P. Hart, C. L. Hottell, J. W. Lydy, A. J. Martin, Jas. A. Mitchell, W. R. Murphy, J. B. Mysewander, Kittie E. Palmer, C. A. Peterson, Geo. S. Ricketts, Charles K. Seibert, Will H. Senour, and Richard Vandever.

READING CIRCLE COURSE FOR 1890-91.

There will be two books in the Teachers' Reading Circle course for the coming year; viz., Boone's History of Education in the United States, and Wood's Botany (Revised). Each book will be furnished at the price of one dollar.

It should be remembered that improvements in education and its agencies are subjects that should be familiar to every teacher.

In this book, upon the professional side of the work, we have an excellent exposition of the processes by which we are able to trace the origin and growth of,—

1. Making education more general, including all classes and ages.
2. Making education free and equal.
3. Elevating teaching to a profession.
4. Adjusting instruction to the learner.

There can be no question that all these points are of immediate interest to the teacher.

Under the first topic the education of the unfortunates, the Indians, the rich and poor alike, secondary and elementary culture, etc., are considered.

Under the second comes the study of public schools as distinguished from private and denominational schools; compulsory attendance, etc.

Under the third we have that which regards the training of teachers, school supervision, pedagogical literature, etc.

In the fourth we find the recognition of the claims of the child upon the method, whether in the kindergarten or the college, out of which must grow the principle upon which elective courses are based.

It seems pertinent that the wider views of education as found in its history, will be of permanent value to teachers as well as the means of closer discipline in study.

The book will be carefully outlined by Supt. L. H. Jones, of the Indianapolis schools, and supplementary to it a review outline of psychology will be given, based upon the work of former years.

On the side of science Wood's Botany has been adopted. A complete description of this book is given in the Journal for May, 1890, written by Mr. H. M. Skinner.

It has been suggested that "Botany Clubs" be organized in the district school, and thus enlist the interest of the pupils in the study of plants. This is nothing that can be more successfully used as *general exercises* in schools than lessons in botany. The plan of the book is such as to make it helpful to analysis and classification of plants.

The outline of this book is prepared under the direction of Prof. Coulter, Wabash College.

It is earnestly hoped that the course for the coming year will prove more helpful and interesting than that of any preceding year in the history of the Reading Circle.

D. M. GEETING, Secretary

READING CIRCLE NOTES.

The following counties have reported the membership as given below:—

Blackford.....	59	Marshall	1
Carroll	137	Martin	1
Cass	122	Miami	1
Clark.....	146	Newton	1
Clinton.....	113	Ohio	1
Dearborn.....	100	Pike	1
Decatur.....	131	Porter.....	1
Dubois.....	84	Posey.....	1
Fayette.....	41	Putnam.....	1
Fountain.....	139	Randolph.....	1
Franklin.....	115	Ripley	1
Fulton	121	Scott.....	1
Gibson.....	81	Shelby.....	1
Grant.....	160	Spencer.....	1
Greene.....	175	Starke.....	1
Hamilton.....	165	Steuben.....	1
Henry.....	128	Switzerland.....	1
Huntington.....	145	Tipton	1
Jackson.....	150	Union.....	1
Jasper.....	67	Vanderburgh.....	1
Jay.....	91	Vermillion.....	1
Jefferson.....	119	Wabash.....	1
Jennings.....	122	Warrick.....	1
La Grange.....	122	Washington	1
La Porte.....	151	Wayne.....	1
Madison.....	150	Wells.....	1

Porter county has the first organization this year, and enrolls all the teachers but ten,—an excellent showing.

Vanderburgh county enrolls every teacher of the district schools and 65 teachers of the city schools. Who can beat this?

Every teacher is taking the work in Wabash, Jennings, Grant, and Franklin counties.

H. A. Ford, 393 2d Ave., Detroit, Mich., will accept institute work in Indiana. Both Mr. and Mrs. Ford are pleasantly remembered as institute workers by many Indiana teachers.

PERSONAL.

J. D. White will remain in charge at Pendleton next year.

A. T. Reid will remain at Winamac at an increased salary.

Geo. E. Long has been re-elected at Colfax for another year.

J. M. Robinson has resigned the superintendency of Oakland City schools.

Mrs. Emogene Mowrer has been re-elected principal of the Warsaw high school.

T. A. Mott has been re-elected for a fourth year at Dublin, at an increased salary.

Albert Hodgins, a graduate of Earlham College, has been elected principal at New London.

George E. Long, principal of the Colfax schools, is conducting a successful spring normal.

T. J. Sanders, Supt. of the Warsaw schools, and his entire corps of teachers, have been re-elected for another year.

Wm. S. Wood, for ten years Supt. of the Seymour schools, is again unanimously re-elected to the same position.

W. A. High, a graduate of the Northern Ind. Normal School, has accepted the principalship of the Bunker Hill schools.

W. M. Moss, Supt. of Green county, says: "The teacher who will not keep up with the procession must get out of it."

Dr. G. P. Jenkins, after three years of faithful work, has tendered his resignation of the presidency of Moore's Hill College.

J. Fraiser Richard is in Washington City compiling the laws governing the organization and administration of counties in the U. S.

Will S. Stoops, who has been principal at Rossville for the past six years, has accepted a position in an Indian school at Bancroft, Neb.

N. C. Johnson has been re-elected Supt. of the Cambridge City schools, which is evidence that his first year's work was entirely satisfactory.

Miss Lizzie Granel is elected principal of the Seymour high-school. She returns to her old position after an absence of four years in an Ohio college.

J. C. Chilton, formerly an Indiana teacher, later of Michigan, now of Texas, has been chosen principal of a large normal school to be established at Dalton, Texas.

J. W. Goldman, Supt. of Crawford county, and J. M. Johnson, will conduct a normal of four weeks at Marengo, commencing July 21, to be followed by the county institute.

Mrs. Lucia Julian Martin will be prepared to give instruction in voice culture, articulation, enunciation, and practical reading, before teachers' institutes this summer; also an evening of dramatic recitals, when desired. Mrs. Martin has been very successful in this line of work for several years.

Wm. A. Millis, a graduate of the State University, served his first year as superintendent of the Paoli schools, and did so well that he has been re-elected at an increased salary.

W. R. Snyder, Supt. of the Muncie schools, made an address at the commencement exercises of the Pendleton high-school. He has been unanimously re-elected for a third year.

Allen Moore, formerly a teacher of Huntington county, but for several years past at the head of the Stanberry, Mo., Normal School, is to be the head of an educational institution at Chillicothe, Mo.

F. D. Churchill, for several years past superintendent at Aurora, has been elected Supt. at Madison, *vice* Dr. J. H. Martin, resigned. Mr. Churchill is one of Indiana's growing superintendents.

S. B. McCracken, for several years past principal of the Delphi high-school, has resigned his place with a view of taking a course at the Indiana University. He is now a graduate of the State Normal School.

John W. Craven, Supt. of Monroe county, has received the nomination for county clerk; and as his party is in the ascendancy in that county he is likely to be elected. The Journal extends hearty congratulations.

J. M. Mallery, Supt. of the Crown Point schools, while in Indianapolis recently attending a meeting of the Grand Lodge of Odd fellows, made the Journal office a pleasant call. He reports everything very pleasant in his school work.

S. E. Miller, for more than twenty years Supt. of the schools at Michigan City, has just returned from Europe, where he with his family spent last year. He is at present at Niles, Mich., and ready to engage in his old work in case a desirable opening presents itself.

J. L. Rippetoe, for so many years Supt. at Connersville, but for the last two years in charge at Trenton, Mo., has been re-elected for next year. He likes his new field but does not forget his Hoosier friends. H. E. Dubois is his high school principal. He is also an Indianian.

Prof. Geo. W. Hoss, formerly editor of the Journal, now Professor in Baker University, Kansas, has written and published a strong article against military departments in denominational colleges. He takes the ground that the curse of the earth in all ages has been war, and that christian colleges can not consistently train for it.

Dr. J. H. Martin, for the past nine years Supt. of the Madison schools, was recently unanimously re-elected, but has since tendered his resignation, and it is understood that he will yield to a unanimous and urgent appeal to take the presidency of Moore's Hill Collegè. Dr. Martin has always done good work in whatever capacity he has served, and Moore's Hill is certainly fortunate in securing him.

W. D. McCoy, who has for eleven years been principal of school No. 24 in Indianapolis, will be a candidate for nomination to the office of Representative for Marion county. Mr. McCoy has a good education, is an excellent school principal, has superior business sense, as evidenced that he pays more tax than

any other colored man in the state, and if nominated and elected, will make a faithful and efficient officer.

A. J. Snoke, after a service of 16 years, resigns the superintendency of the Princeton schools. Mr. Snoke is recognized as one of the best superintendents in the state, and leaves his schools in excellent condition. The school board in accepting his resignation adopted resolutions of unqualified commendation, and regretting the loss of his services and influence. He will be succeeded by F. B. Dressler, a graduate of the State University, who for the past year was principal of the Princeton high-school.

BOOK TABLE.

HARPERS' WEEKLY still maintains its high standing as a literary and political weekly. It is able and independent in all its discussions.

THE NEW ENGLAND MAGAZINE is rapidly taking rank with the older monthlies. It is ably edited and commands an able corps of contributors.

THE LADIES' HOME JOURNAL, published in Philadelphia at \$1.00 a year, is full of good reading, and contains a department for every phase of home life.

OUR DUMB ANIMALS should be accessible to every school. Many teachers can afford to take it for the benefit of their schools. It teaches kindness to dumb animals. Price only 50 cts. Address Geo. T. Angell, Boston, Mass.

FARM AND FIRESIDE, published at Philadelphia, with a Western Edition at Springfield, O., is a semi-monthly paper, at 50 cts. a year, worth to any farmer four times its cost. It is what its name indicates, and treats of all phases of farm life.

THE UNIQUE PENCIL SHARPENER, sold by E. L. Kellogg, of New York, is what its name indicates. It sharpens the pencil perfectly with no outlay of strength, and will save the time and temper of the teacher who has much of this work to do.

THE HOME MAGAZINE, edited by Mrs. John A. Logan, in Washington City, is a sprightly, readable, sensible, newsy paper, and well worth its price. It will doubtless find its way into many homes. The ladies will all want to read it. We will send it and the Journal for \$1.65.

THE CENTURY MAGAZINE for June is at hand and is as usual filled with the best of reading. Every person should read at least one magazine for the sake of the current literature. The *Century* stands as high as the highest and leads all in circulation. It is published at Union Square, New York.

The plays and pastimes of "A Boy's Town" are described in the instalment of Mr. Howells's story in the number of *Harper's Young People* published May 27th. The author will doubtless be plied with questions as to who that boy mentioned by him was, "who wanted to be a pirate, and ended by inventing a steam-governor."

THE TEACHER AND EXAMINER, of Marion, 16-page double-column educational paper, with T. W. Johnson and A. Jones as editors, will represent the interests of the Marion Normal. Barring a marked superfluity of rhetoric in the leading editorial, the number before us reads well and contains information and suggestions for the general reader.

THE ARENA, edited by B. O. Flower, of Boston, is a magazine of great interest to persons interested in able discussions of social and religious questions. It is thrown open to all shades of thought, and so radical views are expressed on every side of every question. The editor seems to feel that a free field and a fair fight will give the surest means of reaching the truth.

THE PHILOSOPHY OF THE CHRISTIAN RELIGION: *By T. J. Sanders, Supt. of Schools, Warsaw, Ind.*

This is an able discussion of the topic named, and secured for Mr. Sanders the title Ph. D. It is now issued and sold by the U. B. Publishing House, Dayton, O., for the benefit of a Theological School—Dr. Sanders liberally donating the "discussion" for that purpose.

THE SHORT HORN GAZETTE is the name of a 16-page 3-column paper edited in Indianapolis by A. C. Shortridge. Mr. Shortridge has been giving attention to farming for some years and is well qualified to edit such a paper. While the paper is devoted especially to Short Horns, nearly everything said will apply to the treatment of other breeds of cattle. The *Gazette* is worth five times its price (\$1) to any farmer who raises cattle and is not already supplied with such a paper. Many teachers farm a part of the year and ought to work to the best possible advantage—hence the above and similar notices.

BLACK BEAUTY, HIS GROOM AND COMPANION: *The "Uncle Tom's Cabin" of the Horse.*

This book is published by "The American Humane Education Society," 19 Milk St., Boston. It was written by Anna Sewall, an Englishwoman, and it is the autobiography of an English horse. It has been reprinted in this country by the society named above, and can be secured for 12 cts., with 8 cts. added for postage. Pres. Angell publishes it hoping it may have as powerful an influence in abolishing cruelty to horses as Uncle Tom's Cabin had in the abolition of slavery. Mrs. Wm. Appleton has placed 1600 copies of this book in the hands of Boston drivers. Twenty cents could not be better invested than in the purchase of this book. If you purchase it be sure and loan it to all your boy friends.

THE TABLE: *How to buy food, how to cook it, and how to serve it. By Alessandro Filippini. New York: Chas. L. Webster & Co.*

Perhaps the writer of the above work might feel insulted if we should call it a cook-book, yet such it is, and as such I wish to introduce it to the readers of this paper. Alessandro Filippini, the author, has superintended Delmonico's famous New York restaurant for a quarter of a century, and it is he who thus gives us the results of his experience. The title is a good index of the contents of the book. When I say that this book gives 72 ways to cook eggs, it may give some

idea of its range. It gives a *menu* for every meal in a year. It tells how to carve and serve food, and at the end gives us an idea of *how* some *other* nations live. The book is bound in oil-cloth that it may not soil. It is sold only by subscription, but can be obtained by addressing the publishers named above. Agents are wanted. Price \$2.50.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

THE SUMMER TERM of the Training School of Expression opens Monday, June 23, with daily class and private instruction for four weeks. Special advantages for teachers.
6-11 LUCIA JULIAN MARTIN, Principal.

NOTHING succeeds like success. The enterprising publisher of THE TEACHER'S AND STUDENT'S LIBRARY, T. S. Denison, of Chicago, has brought out a revised edition of that popular work, and reduced the price to \$2.50. This is a case where the best is the cheapest.
6-11

A MANUAL OF MODEL SOLUTIONS.

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THE THIRTEENTH ANNUAL SUMMER SCHOOL OF ELOCUTION

Commences June 23 (five weeks session), at the rooms of The Indianapolis School of Elocution and Oratory, Vance Block, Indianapolis. Fall term commences September 15, 1890.
6-11 T. J. McAVOY, Principal,
Prof. of Elocution Butler University.

To Teachers. \$75 00 to \$250 00 per month can be made soliciting memberships in the Standard Library Association. We will guarantee a good salary to teachers who desire profitable employment during the summer vacation and who furnish satisfactory references. For terms address,
6-21 W. D. WILCOX & Co., Special Agents,
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ROSE POLYTECHNIC INSTITUTE.—The Rose Polytechnic Institute, an advertisement of which appears in the present issue of the Journal, is one of the three or four schools in the U. S. which are especially devoted to the education of Civil and Mechanical Engineers. One of the peculiar features of the Institute is the thorough and extensive "shop practice" of the students in Mechanical Engineering. Not only are machines designed and working drawings made, but actual construction is required and is made possible in extensive workshops, the equipment of which has cost over forty thousand dollars.
6-11

THE CLEVELAND, CINCINNATI, CHICAGO & S. LOUIS RY. ("Big Four Route"), consists of the lines formerly operated under the names of the Cincinnati, Indianapolis, St. Louis & Chicago Ry. ("Kankakee Line"); the Cleveland, Columbus, Cincinnati & Indianapolis Ry. and Indianapolis & St. Louis Ry. ("Bee Line Route"); the Ohio, Indiana & Western Ry. ("I B. & W. Route"); and the Cairo, Vincennes & Chicago Ry., and with its connections now form direct routes of travel between all points in the North, East, South, and West. With splendid roadbed, new equipment, and an elegant dining-car service, the Big Four Route offers facilities and accommodations unequalled by any other line. Ask for tickets via the Big Four Route.
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HORSEMEN everywhere are speaking in the highest terms of THE BREKEDER'S GAZETTE, and those of our people who are interested either in draft or trotting-breed stock will be interested in learning that the subscription price of this popular and old-established weekly has been reduced from \$3 to \$2, and can be had even as low as \$1.50 per year in clubs of five or more. Its turf department is in the capable hands of Mr. H. T. White of the *Chicago Daily News*, the editor of John Splan's "Life With the Trotters"; and its draft-horse matter is confessedly far ahead of that obtainable from any other source. THE GAZETTE is a thoroughly good "all round" live-stock paper—cattle, sheep, and swine all coming in for good attention—and should be largely read in this country. Sample copies and terms to agents on application to the J. H. SANDERS PUB. CO., 226 La Salle Street, Chicago, Ill. 6-11

A BUSY AGENCY.

During the last two weeks of April and the first two weeks of May, the School and College Bureau of Elmhurst (Chicago), recommended teachers for *over 600 vacancies*. Not a day passes that we do not receive from 30 to 50 letters from employers—Boards of Education, Superintendents, College Trustees, College Presidents, Principals of Academies, etc., asking us to recommend a candidate for this or that vacancy. *If you are really seeking a position*, it will pay you to join a Bureau that has something to offer, and that recommends its candidates for *genuine vacancies*.

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6-11

NATIONAL EDUCATIONAL MEETING AT ST. PAUL, MINN.

The Pennsylvania Line (Pan-Handle Route) will sell excursion tickets at one fare for the round trip, with \$2.00 membership fee added, good going June 28 to July 5 and returning until September 30, 1890. The Pennsylvania Line will afford excellent facilities for teachers and their friends going from Indianapolis and vicinity to this meeting. The morning train leaving Indianapolis at 10:35 has a parlor-car attached and arrives at Chicago 4:50 P. M. and at St. Paul the following morning, by either of the direct lines leading from Chicago. The night train has reclining-chair and sleeping-car attached, and leaves Indianapolis at 12:20 midnight, arrives in Chicago 7:55 A. M., and connects with the various lines leading to St. Paul. In going by the Pan-Handle Route a transfer at Chicago is not necessary, which is an important feature to be considered. Teachers and others going on this excursion are invited to call at the Pennsylvania Ticket Office, corner Washington and Illinois Sts., for further information, or address,

6-21

Asst. Gen. Pass. Agent, Pennsylvania Lines, Indianapolis.

ALL SCHOOL TEACHERS

And officials connected with the school system of Indiana should take a deep interest in the coming meeting of the National Educational Association to be held in St. Paul, Minnesota, July 4 to 11. In order to do this successfully, as many as possible should be in attendance, thereby benefiting themselves and, through their knowledge and experience, gained at the meeting, the Indiana schools. Indiana has not taken as prominent a position at these national meetings as some of her sister states, partially because

of the fact that the state legislature has never made any provision for such purposes, and partially because Indiana teachers and school officers have never united and attended these meetings in a body, or with any preconcerted action, thereby distinguishing the Indiana forces from any other. In order that Indiana may take a high position in these meetings, and exert a greater influence for the good of the state's educational system, and raise the already fair standard of her school system, it is suggested that as many teachers, school officers, students and their friends, unite upon a day of departure via some particular route, going through in a body, as much as possible. This will show the high personnel of Indiana's school-workers. Of course to accomplish this it will be essential that as many as possible go by one route, and it is suggested that all that can go via the Big Four to Chicago. This finely equipped road is the most accessible as well as the most direct from the greater portion of the state. This will insure a pleasant social time and will bring many of the school-workers of the state together and afford pleasant opportunities for forming social acquaintance.

There will be a party of leading school officials, superintendents, and teachers go by this route, leaving the state about July 7th. The main Association does not open till July 8th.

For specific information, time-tables, etc., address, H. M. BRONSON,
Asst. G. P. A., Indianapolis,
or CHAS. S. LA FOLLETTE,
G. P. A., Cincinnati, O. 6-2t Western Pass. Agent, La Fayette.

TEACHERS:—Vacancies for Fall, paying from \$30 to \$200 per month. Address with stamp. W. E. CAVERS, Georgetown, Texas. 5-3t

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NATIONAL BUREAU OF EDUCATION.—Colleges, Schools, and Families furnished with thoroughly qualified Presidents, Principals, Teachers, Tutors, Governesses. Send for circulars. Miss Eliza Crosthwait, 54 Cole Building, Nashville, Tennessee. 5-6t

EMPLOYMENT FOR TEACHERS.—*The U. S. Mutual Accident Association* of N. Y. offers good insurance at exceedingly low rates. A good active agent is wanted in every community. Such an agent can earn liberal wages. For full particulars address, 5-4t D. F. FLEENER, Gen. Ag't, 31 Virginia Ave., Indianapolis, Ind.

Look here, Friend. Are you Sick?—Do you suffer from Dyspepsia, Indigestion, Sour Stomach, Liver Complaint, Nervousness, Lost Appetite, Biliousness, Exhaustion or Tired Feeling, Pains in Chest or Lungs, Dry Cough, Night sweats or any form of Consumption? If so, send to Prof. Hart, 88 Warren St., New York, who will send you free, by mail, a bottle of *Flaraplexion*, which is a sure cure. Send to-day. 5-5t

If you are contemplating a trip to any point in Missouri, Kansas, Texas, California, or any Western State, call on the nearest agent of the Big Four Route (C. C. C. & St. L. Ry.), and obtain full information as to rates, route, and all other matters of interest. The solid vestibule trains of the Big Four Route, making close connections in Union Depots, offer accommodations and facilities excelled by no other line. The dining-car service of the Big Four Route is unsurpassed. 5-7

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page. 1-tf

TEACHERS, IF YOU WANT A MEDAL for your school, send for my Illustrated Catalogue and Price-List. D. J. RAWISZER, Pearl River, New York. 3-4t

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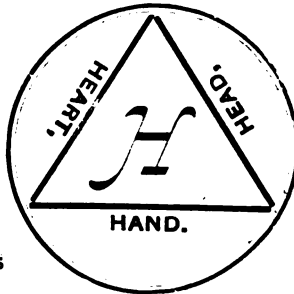
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6-11

Address: Prof. W. L. MONTAGUE, Amherst, Mass.

INDIANA SCHOOL * JOURNAL.


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No. 7.

THE SECRET OF THE TEACHER'S POWER.

MRS. E. MOWRER, WARSAW.

“IFE,” says some one, “is a search after power.” Among the lower animals and among savage peoples this refers to physical power, but as applied to civilized nations, to mental or moral ascendancy. The teacher’s power implies that the attributes of his mind have imparted such a stimulus to the youth under his care that the individual is impelled to make the most of himself and his opportunities.

Many claim that the secret of such power is an undefinable, subtle quality inherent in the teacher and exerting its influence without his conscious application, and that to look for this occult element would be as futile as were the attempts of the Alchemist who vainly sought the magic formula that should transmute common things into gold. Yet they will tell you that *attention* was the secret of Dickens’s success, *eloquence* of Webster’s, *courage* the Duke of Wellington’s, and so on through long lists of great names.

Teachers, as a rule, are not geniuses, and so are subject to the same laws as other people; hence we may expect to find one controlling element the open “sesame” common to teachers as to others, and that is *concentration*. “Enlarge not thy destiny,” says the Oracle. “Under-take not many things.” Meaning that whoever would succeed must confine his earnest, persistent efforts to a line of work that has a bearing on his chosen profession or occupation. How common it is to find teach-

ers who devote themselves to school work just so long as they are in the school-room. But out of school hours and during the long vacations, frittering away the time in doing things that have no bearing on what ought to be their chief care and delight, their chosen work. Thus shifting along from year to year, such teachers complain of their low wages and non-promotion. "The fault, dear Brutus, is not in the stars but in ourselves that we are underlings." How far and how fast would a lawyer expect to rise in his profession that attended to law just during the hours spent in the court-room? "The laborer is worthy of his hire."

"All power is of one kind—a sharing of the nature of the world," writes Emerson. That is true, but all teachers are not of the same kind. Some are born teachers, some become teachers, and others have teaching thrust upon them—becoming the victims of circumstances as it were—and it is a melancholy truth that they never seek to improve them. Scores of such victims are to be found all over our broad land to day. Nepotism or some other influence secures them a position and keeps them in it year after year, although they may be entirely unfit for it, except on the ground of keeping *good order*—for often this class of teachers are good for keeping children *quiet*, both in body and mind. "Only that and nothing more." You will hear these teachers and their friends saying they don't believe in wasting time and money on normal schools. Ask such a teacher if she is going to the State Teachers' Association, which has met in Indianapolis for thirty-six years annually, and she will innocently ask, "Where is it at?" Ask her to come to teachers' meetings and she will say, "What do I want to go anywhere to see teachers for? I see enough of them at home." Or, "I must sew," or "I must get my teeth filled." Pity there are no dentists who do brain filling. Perhaps they would get no patronage, though.

These teachers have no time, money, or inclination to attend educational meetings, or to invest in reading matter. They know no more of the educational questions of the day than a South Sea islander does of Volapuk.

"We are men, my Liege." "Aye, in the catalogue ye pass for men." So with this class, in many places they are rated as teachers and are paid as much. In poetry certain conditions must be fulfilled to satisfy the requirements of poetic justice. Let us have some good old-fashioned poetic justice. But of this no more. Throwing the broad mantle of charity

over them leave them where, "When ignorance is bliss 'tis folly to be wise."

The born teachers can be counted on the fingers of one's hands. Plato, Aristotle, Quintillian, Pestalozzi, Froebel, Matthew Arnold, and our own Horace Mann,—

"With more than mortal powers endowed,
How high they soared above the crowd."

They were the embodiments of great ideas, the products of centuries of thought. Yet the same lode-star that guided their pathway and brought them to their destined haven of success was the same that must guide those who were to *become* teachers, and that was concentration. That is to the teacher's power what heat is to light and motion, the motor force.

All the great mathematicians and scientists were men of wonderful powers of concentration. Newton did not dissipate his energies as did his companions, but could be totally oblivious to his surroundings for hours and even days, achieving results that form one of the golden milestones in the world's history. Pericles was seldom seen except in the market-place or council house. Archimedes could lose his life as calmly as Newton did his dinner, so thoroughly was he under the control of that which to him had become a habit—concentration. A tiny fish scale was enough to claim the concentration of Agassiz, yet how mighty were the results.

A careful study of history shows that whenever a nation has gained a preeminence in war, commerce, empire, or the fine arts, there has been a national concentration. The Phœnicians made a specialty of navigation; the Spartans, of physical endurance; the Romans, of conquest. What is true of a nation is true of an individual.

And this in regard to teachers: while obliged to teach different subjects, still there must be one nearer, dearer yet than all others—and to this subject he should devote all his spare time, should make some pretensions to be an authority in this.

The Book of the Past is full of what concentration has done. And not only earth's wisest and greatest that owe so much to this, but even mediocrity comes in to sound its praises. For men of medium talents have left names that ring along the changing grooves of time while their more favored brothers have been enrolled in the great army of the forgotten.

Let me ask you, fellow-teachers, is not this true, that just so far as you shut out the thousand and one things that divert from work and devoted yourselves to work that pertained to education, did not that bear a corresponding ratio to your increased power as a teacher? And here it seems to me is a pivotal point in one of the educational problems of the day. Teachers' salaries are too small for the outlay involved in the preparation for teaching, and too small to enable them to devote themselves to that as a profession. Neither are they sure enough of their positions from year to year to give them much assurance that such devotion is needed. The poor teachers get pay but for nine months in the year and must have bread and butter for twelve months.

They are expected to read a great deal, need many books, are expected to be thoroughly informed on all topics of the day, must dress tolerably well, *ought* to be in fact a lady or gentleman of considerable culture. It is almost impossible for teachers to get employment during vacation, and if they could they would be encroaching on the supply of energy needed for next year's expenditure. How long it is going to take the public to understand the peculiar needs of the teacher I know not. Would that we could cast our horoscope and see the teacher's heavens thickly dotted with planets and constellations in favorable conjunction for this and many other needed changes. One way to effect a change is for the workers to sting the drones out of the educational hive by raising the scholastic and professional requirements.

The many young ladies who, wishing to dress well, enter the teachers' ranks until they get a chance to become second mate in some matrimonial craft, should be excluded; also many young men who become Knights of the Ferule as a means of getting a few dollars wherewith to begin some other work. Such teachers have done much toward bringing the calling into disrepute. And people look upon teachers as a class who do that because they can do nothing else, so that the dignity and importance of the true teacher's office is not understood nor appreciated by the majority of people. Teachers themselves are to blame in part for this. A teacher should have a true conception of the work, should know thoroughly the subjects he is to teach. Many teachers try to make their ready gift of talking take the place of careful preparation. Secondly, the teacher should have a knowledge of the conditions and needs of the pupils. This implies a knowledge of the laws and actions of the human

mind. He must know how the mind should develop that he may adapt his instructions to the child's requirements. Thirdly, the live teacher must know something of the views of leading educators, not for servile imitation,—for every teacher has his own gift, some knack peculiar to himself, and which is to a certain extent the secret of his power,—but because it is dangerous for him to become isolated from the best educational thought of his time, for it tends to mental laziness, ignorance, and ridiculous self-conceit. He should not be a wrangler over methods. There has been too much madness in our methods.

Aristotle says three things are necessary for him who would influence others: Good sense, right feeling, right principles. Good sense I interpret as meaning tact, without which methods are of little account. Right feeling means a spirit of ready sympathy with childhood's joys, sorrows, and failings. An active sympathy seldom fails to find a responsive chord, and the teacher reaches the heart and even the intellect of his pupils. Above all the teacher must possess the virtues of cheerfulness and patience. The annoyances of the school-room are many, and if each little irritating circumstance is dwelt upon, souring the temper and chasing away the sunshine, the teacher's power will vanish too. All these requirements presuppose a good physical basis. In fact plenty of animal spirits is a pretty good stock-in-trade for even a teacher. By right principles is meant not only a good moral character in the legal sense of the term, but in being actuated by the highest and purest motives. While ridiculing the idea of so many parents, that during six hours in a day and five days in the week for a few years of the child's life, the teacher can by his moral energy undo and overcome the evil tendencies of generations, perhaps, added to the present bad influences of the street, still we do expect the teacher to be a model worthy the imitation of his pupils.

Teachers with such qualifications deserve well of the public. Yet there are many such who feel constrained to leave teaching for some other pursuit, because there the hard work and money expended in the prime of life will, with thrift, insure a competency for old age, while the teacher, be he ever so economical, after having spent the best years of his life in the most arduous kind of labor, and his money and talents in the uplifting and bettering of his fellow-men, has the flattering prospect of being left in his old age to eat the bread of poverty.

Teachers are doing more to keep the country from anarchy and heathendom than any other class of people. Suppress the public schools for

two years and the youth of the country would run riot. Suppress them for *ten* years and the nation would make more lavish offers for their return than the old Burghers did to the pied piper of Hamelin for the return of their children.

We all know scores of noble men and women who are the peers of those in other professions in talents or learning, who are doing more for the good of their race than twice the same number of writers, preachers or statesmen—because of the favorable opportunities afforded—and who would by exerting their energies in other channels win far more recognition from the world than they can ever gain as teachers.

When a teacher goes into some other pursuit he generally makes his mark, for the discipline acquired, the good habits formed, tell wonderfully in the new life.

When Horace Mann was in congress the teacher statesman got through with more business, got more help for his constituents, than any of his colleagues. And in logic and forensic eloquence the great Webster himself found a foeman worthy of his steel. Garfield was a successful teacher but a more successful statesman. Had he remained a teacher would he ever have been thought of as a candidate for congressional or presidential honors? Most emphatically *no*!

Why are these things "thusly"? Why is not a live, thoroughly educated, patriotic school man as capable of legislating for this nation as some ignorant oil king or besotted pettifogger? "Men and brethren, these things ought not so to be." Are the men of this country who teach no part of the body politic? But why digress further, why gaze at the gloomy side of the cloud when its silvery lining is in sight?

The earnest teacher has joys of which the world knows not, and when by his instructive aid a pupil is led onward and upward into the enjoyment of those pleasures that await his coming when he enters a higher range of thought and feeling, then the teacher has his highest reward and his soul overflows with triumphant, joyful emotions.

Some may sneer at this; but no man or woman out of whose soul the childhood has departed, who has no active delight in life, no spontaneous affection for beauty and truth, no creative longing to transform some part of the waste, weed-filled world into garden ground, no willingness to toil long and hard to produce such a transformation, no abiding faith in the final outcome of good, has any right to enter the school-room.

To reiterate a former statement, but few people understand how much power the teachers have exerted, how much they are now doing, and how much they must do in the future. And the energy of this motor force must be doubled and redoubled to undertake the Herculean task before them. For the work of the American teacher is unique. We can follow no model, the church or state does not prescribe the work we are to do, but we must to a great extent blaze out our own paths through the educational forest. We are forming a new nation, here the youth of all climes and nations must be molded into a new nationality. We must, says some one, change their language and their customs; teach them to love another flag, and wean them from the graves and traditions of their fathers. We must, in short, change them from slaves to men, from serfs to sovereigns.

As Chauncey M. Depew said in a famous speech, the marching music of the columns of the republic must not be the Marseilles or the National Hymn, but the high and harmonious teachings of the common school.

If we, O fellow-teachers, are successful in our work, the future historian may yet record the existence of a nation more powerful than ancient Rome, and more cultured than ancient Greece. If the Roman Forum gave law to the world and Gardens of Greece furnished models of art and oratory, may it not be said that the American School-House gave liberty to human kind?

In conclusion: the future of the commonwealth depends upon the teachers. What they are to its profession that it will be, what *that* is the youth will become, and what *they* become determines the whole future of the state, nay more, of *all* states, of *Eternity itself*, for whatever our religious tenets we must believe in an immortality of influence.

The power that we exert over our pupils, and the forces we put to work will cease to act only when soul shall cease to impress soul.

THE COUNTY TEACHERS' INSUITUTE.

J. FRAISE RICHARD.

Of the many agencies employed to secure educational growth and advancement, none, it is thought, has occupied a more conspicuous place than the Teachers' Institute. In fact, to many engaged in instructing the youth of the land, it has been the only means of professional instruc-

tion. Its importance has, therefore, justified the time, labor and money expended in securing its perfection. A quarter of a century's experience in Institute work in some half a dozen states of this Union will, it is hoped, be accepted as an apology for the writer's recording some of his experiences and observations in this valuable field of labor.

EVIDENCES OF PROGRESS

in the design, mode of conducting and practical results of the Institute may be clearly discerned on every hand. Prominent among these are the following:

1. The pioneer Institute was conducted wholly by home talent. The leading spirits of the community met in solemn conclave, and discussed the difficulties which beset them in their work. Valuable results flowed from such crude efforts. They fully justified the sacrifices of those who inaugurated the enterprise; and yet they could not be accepted as a guarantee of permanent and completely satisfactory progress. The errors and prejudices of the community were perpetuated as will always be the case when home talent only is employed in the management of school reforms. Reforms come from without. In due course of time, men and women with higher educational advantages, and fired with professional aim and zeal began to be employed. These spirits have stimulated the brethren and sisters to seek loftier heights and attain greater proficiency. Normal training schools, educational journals, text-books on teaching and school management, and frequent educational associations have followed in lawful succession.

2. Instruction in the pioneer Institute was confined almost exclusively to the knotty problems in Arithmetic, the intricate sentences in Grammar and the perplexing subjects in Geography and Reading. Subject-matter or the *what* of teaching, demanded all the time of the session. Whatever was developed in the line of methods or the *how* of teaching was purely incidental; and the *why*, or philosophy of work, was quite generally ignored.

3. The attendance is larger and more conscientious than formerly. This may be owing to the fact that a pecuniary value has, in many places, been attached to such attendance. Be this as it may, school officers are beginning to recognize the fact that the live teachers of a community are those who avail themselves of the advantages offered by Institutes and other educational agencies.

4. The Institute is doing more than any other single agency to lift teaching up toward the plane of a profitable and permanent life-employment. Unfortunately, the teacher's calling has never received, in this country, the recognition which it justly merits. Except for those fortunate enough to attain the fat places, it has not secured any other rank than that of a temporary make-shift—a means of finally securing standing in some other calling. Until teaching is placed upon the bed-rock of permanency and adequate remuneration, the people can not confidently expect to enjoy the delicious fruits of the educational millenium. But the Teachers' Institute, properly planned and discreetly directed, is the most potent agency for bringing about this desirable result. It is fostering and developing professional fervor and enthusiasm, that peculiar oneness and consecration of purpose which the French call the *esprit de corps*. It is inspiring teachers with the indefinable something which made Napoleon's soldiers follow him into the jaws of death, and endure superhuman exposure if he only commanded.

It may aid in forming clearer views of the Institute, and in elevating its sphere of usefulness, to present

A FEW STRICTURES AND SUGGESTIONS

upon the current methods of conducting them.

1. In some cases, sufficient consideration is not given, by instructors, to the real condition of those whom they attempt to lead. As previously remarked, Institute instruction has very wisely and naturally passed through the three stages of *subject-matter*, *method*, and *philosophy*. It is assumed, by some, that the major part of instruction ought to be confined to the last stage, the supposition being that the requisite scholastic training has been secured prior to the teacher's being admitted to pedagogical ranks. This is, however, in the great majority of cases, contrary to the fact. Public instructors, school superintendents, college professors, and those occupying prominent places in educational circles may have passed all these stages, and imagine that new recruits are similarly fortunate. Proceeding upon this hypothesis, and upon another equally unfounded assumption that the vast majority of teachers in country schools, who most need help, remain permanently in the so-called profession, they instruct in an unknown tongue. They fail to reach the comprehension of those whom they ought to benefit and inspire, and the beneficent intentions of the Institute are largely thwarted.

My plea is, not that higher professional instruction is unnecessary, but that it fails and must necessarily, in the County Institute, to accomplish its purpose. In the very nature of things it is unphilosophical in its essence, and abortive in its results, failing not only to reach those who most need help, but, in many cases, driving them away from the calling which they might aid in making a profession. I have witnessed the efforts of some worthy instructors who were prompted by this ethereal, transcendental, and I was about to say impracticable notion of professional excellence, and have been strongly impressed that they were trained in the school of philosophy described by Dean Swift—the school in Laputa in which some members had spent eight years in endeavoring to extract the sunbeams from a cucumber, while others were equally patient in their efforts to thread invisible needles with invisible thread.

It would be manifestly unwise to expect the initiate in the Blue Lodge of the Masonic order to understand and appreciate the instruction appropriate to Knights-Templarship, on the plea that Masonry is an ancient institution and that its higher degrees are well understood and proportionately beneficial. Equally so is the notion that professional work only should characterize our County Institutes.

2. An obvious corollary from the foregoing is the statement that the County Institute should be graded so that [educational] "saint and sinner receive their portion in due season." The advanced grade may have special sessions for purely professional discussions, but the general work of the Institute should deal with teachers integrally. In this manner both classes can be accommodated, and the proper enthusiasm which the Institute is intended to foster, may be aroused and directed.

3. The efficiency of the Institute is not unfrequently impaired by having too many instructors. Mental and moral dissipation is the result. Lack of unity in plan, and the failure of every instructor to reach a point to properly interest his auditors in the work in hand may invariably be expected. As a rule, two good, live instructors are sufficient for the occasion. They can properly subdivide their duties, and, if need be, can utilize much of the home talent in special lines of work.

4. The social phase of the Institute needs to receive more careful consideration. Its annual session, the county fair excepted, is the only time when the teachers, as a mass, are permitted to meet and mingle freely. Wisely projected and ably conducted social exercises are potent

for good. Instructors and teachers, and teachers with themselves, need to become acquainted at the very opening of the session. The first hours of the day, and the first evening of the week, should be social in their nature, thus laying a good foundation for earnest, efficient work during the remainder of the week. Iron-clad formality and superficial reserve should yield to the imperative demands of the occasion. Recesses, affording an opportunity to unbend and, by the inhalation of pure air and the circulation of oxygenized blood, take on new strength and inspiration, are as essential to the school or the institute as air, sunlight and moisture are to the ordinary plant. Sphinx-like dignity and frigidity may be pardoned in a judge upon the bench, but are wholly out of place in the Institute or school-room. Social exercises and diversions, judiciously conducted, do much toward unifying and improving the teachers of a county.

5. Organization and active work should commence promptly and earnestly in the morning of the first day. Too frequently the impression prevails that nothing will be accomplished the first day; and, it must be confessed, current practice frequently gives just ground for entertaining such a view. It need not be argued that the efficient Institute begins promptly and in dead earnest at the opening hour, and that the work of that hour is the most important of the session. Every instructor and every teacher should, if at all possible, be present at the initial session, and a special credit should be given to every teacher who is thus early on the ground. It can not be too strongly impressed that the life and enthusiasm projected into the opening session are the key-note and guarantee of the complete success of the Institute as a whole. Further, the success of the teacher in his own school, in fact, in his life-work, may be safely predicted from his early and continued presence and co-operation at the Institute.

6. The Institute has failed, at times, to do what is often neglected by schools—to train teachers how to use, profitably, a multiplicity of text-books, and to break up the pernicious practice of requiring pupils to memorize and recite, parrot like, the lifeless, profitless words of the adopted text-book. With all the effort to introduce psychological science into our schools, it is yet lamentably true that *words, everlasting words* are taught without the least conception of their import. It is the old story of the little negro boy preparing for “‘zamination.” His teacher

had told him that "an angle is two lines meeting at a point." To keep these words in mind and thus secure a high percent, he repeated in his dreams and his wakeful hours: "Angle's two times, nigger on a pond." Slavish adherence to the text is the crime of our schools, destructive of all interest and originality. The Institute ought to correct it.

7. The special local interests and surroundings of the county are not appreciated as fully as they ought to be. Teachers themselves are often unacquainted with the geographical, historical, scientific, and even religious and literary wealth of their own communities. The Institute ought to aid in utilizing these priceless treasures. The instructor who can become acquainted, in advance with these interests, may be instrumental in developing a genuine love for botany, geology, zoölogy, chemistry, philosophy, mineralogy, history, theology, and thus open up new mines of incalculable value.

8. The Institute should popularize educational work in the county. One of many ways for accomplishing this desirable result is to have such a report of every exercise as shall give a complete and satisfactory view of what was done; and then have it published in either the secular press or in pamphlet form for general circulation. This will prepare the people to understand and approve the new work introduced by the teachers in the schools, and will make a new era in popular education.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools. He is also the author of several educational works.]

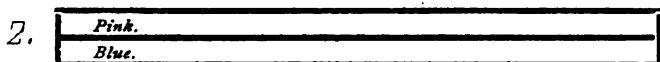
THE FRACTION STRIP.

THE paper strip has been found to be so effective in the teaching of fractions in our schools that I have named it the fraction strip. It is a strip of colored paper twenty to twenty-four inches long and one-half, one third, or one inch wide. The ordinary colored cover paper of the book-binder answers all the purposes of the work.

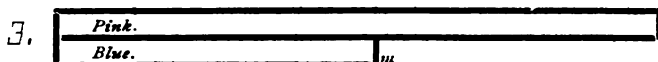
Its advantages over the circle and the square will be evident from the very simple exercise. Let each child place before him from right to left a pink strip, thus:—



In front of this and close up to it let him place a blue strip of the same length, thus:—



Then let him fold, without changing positions of the strips, the right end of the blue strip on the left end of the blue strip, and crease it in the fold at the point *m*, thus:—



Lifting the upper from the lower half of the blue strip, and holding the lower half firmly on the table, he may then carefully tear off the upper half, and replace it in its former position (fig. 2) on the right, thus:—



It will be readily noticed that throughout the equivalence in length of the two strips is clearly prominent. When, in fig. 3, the blue strip is folded, the change—to the child, at least—is only one of length, he sees simply a shorter strip; and in fig. 4 the two blue halves appear plainly as two shorter strips which together, are equivalent in length to the pink strip.

Had a similar experiment been made with square or circular pieces of paper, several additional changes would have become prominent, as will appear from the following series of figures. In the first of these series a blue and a pink square are substituted for the strip. Fig. 5 represents the pink square laid on the table; fig. 6, the blue square in front of it; fig. 7, the right half of the blue square folded on the left half and the paper creased in the fold; fig. 8, the right half carefully torn off and replaced in its original position.

Fig. 5.

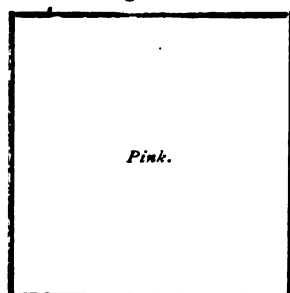


Fig. 6.

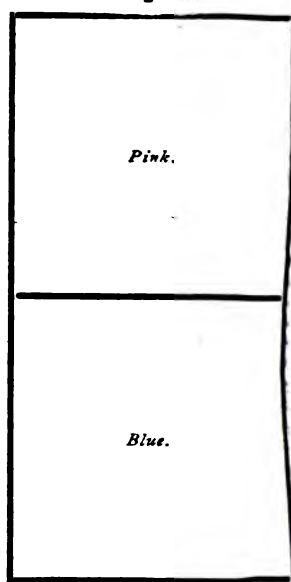


Fig. 7.

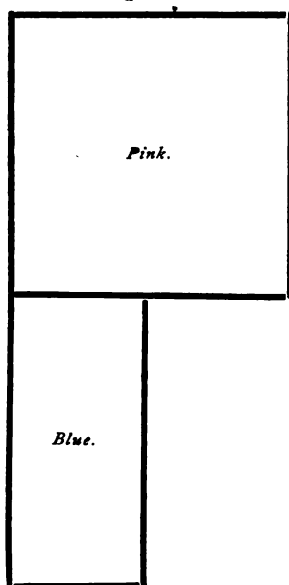
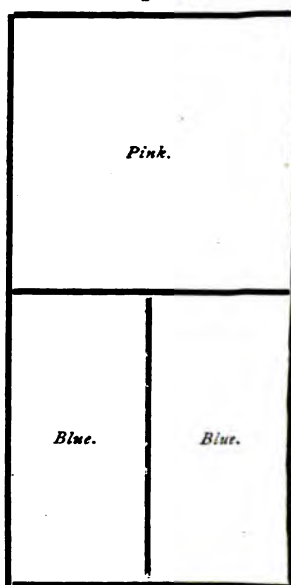


Fig. 8.



In the second of these series (figs. 9-12) circular papers are similarly treated.

Fig. 9.

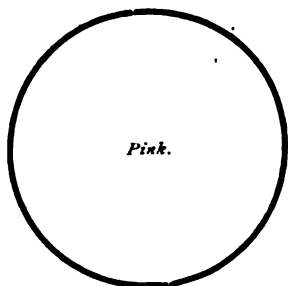


Fig. 10.

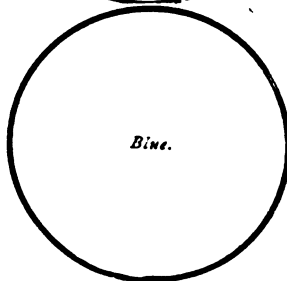
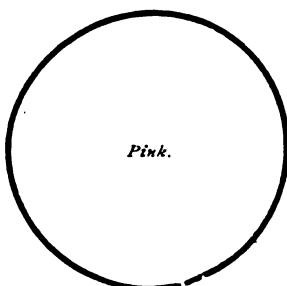


Fig. 11.

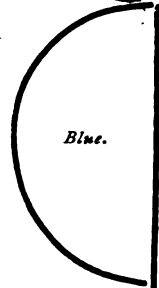
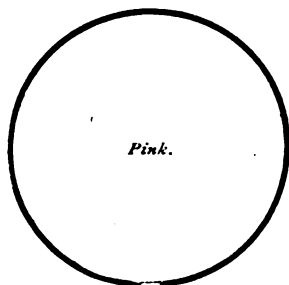
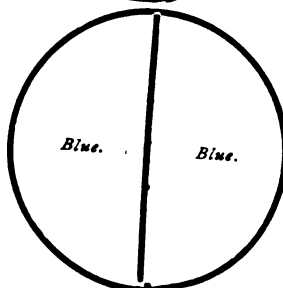
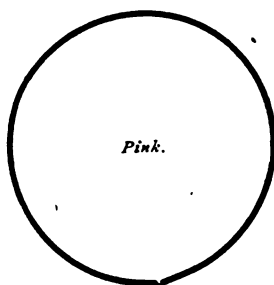
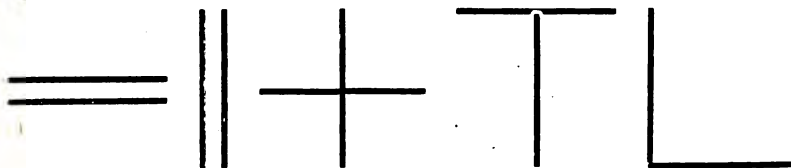


Fig. 12.

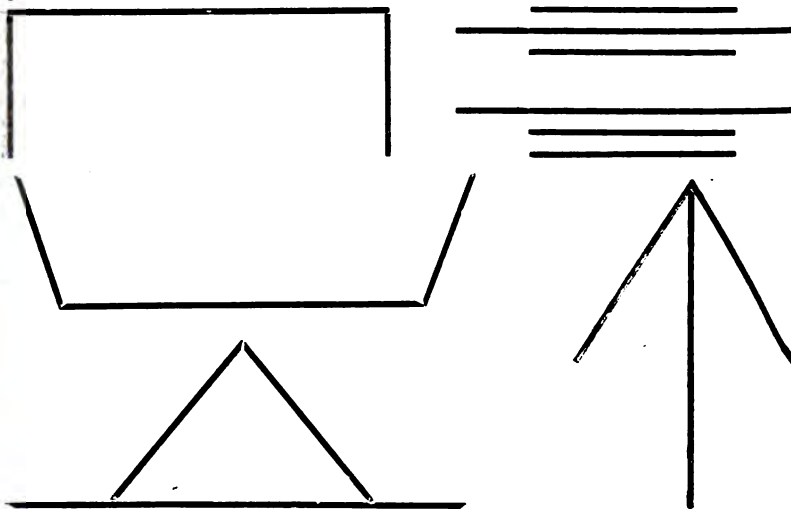


It will be noticed that in fig. 7 the blue *square* has been transformed into a blue *oblong*, a change in form which is by far more prominent to the child than the change in size. Similarly in fig. 11 the blue circle has become a blue semi-circle, a change of form strongly emphasized by the appearance of a *straight* line where before there were only *curves*. At the same time, it is difficult for the child, both in the squares and in the circles, to discover the equivalence of the blue and pink forms. In order to bring this out it becomes necessary to lay the blue form *over* the pink, but in this new position the color contrasts unite with the form contrasts to force the size into the back-ground. None of these disadvantages hinder the work with the strips, which for this reason should be used exclusively at first.

Returning now to fig. 4, the two blue halves may now be used in a variety of little dictations, in which they assume various relative positions and form a number of new combinations. A few of them are indicated by pairs of lines in the following series of figures:



Or, the blue *halves* and the pink *whole* strip may be used together in similar dictations by which the relative values of half and whole are emphasized, as in the following series:



By such exercises the relations *half* and *whole* may be fixed in the child's mind accurately and in a living fashion, full of practical significance and associated with the child's varied interests.

Similarly, too, ideas of third, fourth fifth, and sixth may be developed and fixed; and after these exercises the square and circular papers will be in place to extend the scope and deepen the meaning of these ideas.

For additional hints, I refer the reader to my "Primary Methods." I merely add here that in advance work, these strips will be found most helpful in developing clear experimental notions concerning addition, subtraction, multiplication, division, and reduction of fractions. An hour's experimenting with such strips will reveal satisfactory method for this purpose to every intelligent teacher.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

METHOD IN THE SCIENCE OF GRAMMAR.

METHOD in any science is the process of thinking the diversity of the individual facts found in its subject-matter into the unity of a general principle. The subject-matter in grammar is the individual sentences, in their infinite variety of forms. The leaves of the forest are not more varied. Yet this manifold variety must be thought into the unity of a single principle; and this, too, in such manner as to bring out the variety in all its richness. While searching for unity, the greatest possible variety must be made to appear. Limiting the definition of method in science to the particular subject-matter, the sentence, it reads thus: Method in the science of grammar is the mental process of thinking into unity the manifold diversity of sentence forms.

From the foregoing, method in grammar does not appear different from that in any other science, except as to the mere limitation of subject-matter. The statement gives the method in its most general form. This universal movement in grammar must now be given a more special content, which it receives through the nature of the limiting subject-matter as revealed in the organizing principle of the science.

Since in the construction of the science of grammar the manifold sen-

tence forms must be organized into unity, the first step in that process is to ascertain the fundamental attribute in which sentences find their unity. Such an attribute is called the universal principle of the science, because it must be found in every individual within the range of the subject-matter. It is called a fundamental principle, because it is the basis for all the particular attributes found within the subject matter. It is called the organizing principle, because through it each fact is given its place in the science. The fact containing the greatest degree of the universal attribute stands first in rank; those containing equal degrees are co-ordinate in rank; and the one of least degree, subordinate in rank. The degree of relationship being thus ascertained, the place of each fact in the science is fixed; and then the science is said to be organized. A science cannot be organized by outlines, or a system of headings in the text book. A science is a complex system of thought relations, and the student must not be deceived into believing that because he has a written outline that he has the science of his subject. The peculiarity of the process of thinking diversity into unity in grammar arises from the peculiarity of the universal attribute in which the unity is found.

The unifying principle in every science has the two phases, particular and universal; as discussed under the head of definition in a previous number of the Journal. Sentences, like all other objects, express thought. Expression of thought, then, is the universal attribute binding sentences and the other objects of the universe into unity. There are two classes of objects as to the expression of thought: one class exists for the purpose of expressing thought; as, the statue, the painting, the discourse; the other class exists for some other purpose, but expresses thought incidentally; as, the house, the human body, etc. The house was made to live in; but it can not help revealing the thought of the architect: while the discourse exists solely for the purpose of expressing thought. Of the objects which exist to express thought, one class expresses thought by natural resemblance; as, the statue and the painting: while language by arbitrary form expresses thought arbitrarily; i. e., by common consent. The picture of the horse will make the child think of the horse because of natural resemblance to the horse; while the word horse will suggest nothing until, by authority, it is associated with the object. Thus language is separated from the class of objects that exist for the purpose of expressing thought by the fact of arbitrary form. Thus, arbitrary form for the p

pose of expression both separates and connects language with the other objects of the universe. But we have not yet arrived at the subject-matter of grammar, the sentence.

Language has three organic forms; words, sentences, and discourse, each expressing a unity of mind product. A sentence is an arbitrary form expressing a thought. A thought is the relation which the mind asserts between two ideas—a relation of unity; therefore, a sentence is the expression of the relation which the mind asserts between two ideas. A thought has form—the form of triple unity—the activity which establishes the relation of subject and predicate, and the subject and the predicate which arise from the relating activity. A sentence expresses these three elements; and in so doing takes on the triple form of the thought. When it is said that the picture expresses thought, something quite different is meant; for three parts can not be found to express, respectively, the three parts of the thought. The sentence takes its form from the mind; the picture takes its form from some external object; as does the statue.

We have now put the following content into the sentence:

1. Expresses thought;
2. As its purpose;
3. In arbitrary form;
4. By conforming to the triple form of thought.

Or, in full outline:

All objects express thought:—

- I. Some express thought incidentally;
- II. Some exist for the purpose of expressing thought.
 1. Express thought by resemblance;
 2. Express thought by arbitrary form—by language;
 - (a) Words—signifying idea;
 - (b) Sentences—conforming to thought;
 - (c) Discourse—organization of thought to some definite end within the unity of a theme.

The first attribute named above, the expression of thought, is strictly the universal; and the last one, triple form, is particular. The others

named connect the particular of the sentence to the universal; but in relation to the sentence, any attribute, except the last named, is considered universal, because they establish the relation with the universal: the universal is implicit in them. The particular, "conforming to thought" when considered with reference to the individual sentences, or part within the subject-matter itself, is said to be universal. Hence, the foregoing universal and particular are taken together as the universal principle in the subject of grammar; one phase of the principle connecting the subject with every other, and the other phase giving the subject its own internal unity. Formulating the principle in a definition we have this: A sentence is an arbitrary form expressing an act of thought. Or a sentence is a unity of words expressing the relation which the mind asserts between two ideas. It should be observed that this definition makes explicit the two elements, universal and particular, which constitute the fundamental principle. The fundamental principle of any science should be formulated at the outset in a definition of its subject-matter. The elements set forth in the definition must reappear at every step in the construction of the science; and it must be correct for the service it will render throughout the discussion. In fact, a definition receives its severest test in its power to bring into organic form all the facts of the science. A student must not, therefore, form his definition of a sentence and lay it on the shelf as if it had no further service; but must keep it present in every thought while constructing his science. The definition that a sentence is a group of words making complete sense, may not only be shown to be too broad in that it includes discourse; and too narrow in that it omits sentences which make nonsense; and too vague in that the word sense names no definite mental product; but it will break down as a guiding principle in the construction of the science. To say that a sentence is a thought expressed in words would direct the attention to the study of thought instead of the external form of thought.

What more specific element does the foregoing definition add to the universal thought movement already noted—that of thinking sentence diversity into unity? The sentence is the vital unity of thought and form; as well as subject, predicate, and copula. The thought and form are not mechanically related as a vehicle and its contents. The car conveys the wheat, and so does the sentence the thought; but here the parallel ends. The wheat can be removed and the car remain; but when

the thought is removed the sentence perishes. The sentence form can not exist without the soul that gives it being. The sentence is form and content in vital unity. It follows, therefore, that in every conscious act of attention to the sentence the mind must distinguish between *form* and *content*. This is an act of analysis and synthesis. The analysis is for the sake of the synthesis; both are to establish a higher unity between words and the thought form which organizes them.

While the attention must rest on both thought and word-form, the word form is the object of study; otherwise grammar would turn out to be logic. Thought is a means to a knowledge of words as an end. This fact draws a line between grammar and the other language studies. When the student reads, his conscious attention should rest in the thought; the words being only means to the thought. The same is true when he composes. But in the study of grammar, the order of means and end is reversed. When the pupil comes to the study of grammar, he is accustomed to live in the thought beyond the language; and the change of resting the attention in the language form as determined by the thought is attended with great mental effort.

It thus appears that the universal movement of thinking sentence diversity into unity requires the acts of analysis and synthesis of thought and form. Since the thought has parts, its association with the form separates the form into parts. The parts of the sentence are directly related to the parts of the thought, and indirectly to each other; i. e., the relations which the parts of the sentence sustain to each other is determined by the relation between the parts of the thought. Hence the analysis of the sentence must be indirectly made through the analysis of the thought expressed. It thus appears that sentence analysis requires a very complex activity, yet of a very definite form; which may be stated thus:

1. The form of the sentence must be observed;
2. The thought expressed must be created;
3. The thought must be analyzed;
4. The analyzed thought must, part by part, be associated to the form;
5. And while associating the thought to the form, the parts of the sentence, and the relations among them, must be made to appear.

These acts do not occur in this serial order, but are the elements of one complex activity. The mind must continually observe the sentence form; must continually be active in creating the thought, else it would

disappear from mind and evade analysis; the thought must be analyzed in the presence of the foregoing activity; and the sentence must be analyzed while the mind is active in all the foregoing processes. This suggests one reason why grammar should not be studied early in the school course.

Thus we have arrived at a statement of universal thought movement in grammar: *The mind thinks sentence diversity into unity by the complete form of analysis above noted.* The significance of this law, with another universal element of it, will be considered in the next number of the Journal.

PURPOSE AND MEANS AS INTERPRETING IDEAS IN HISTORY.

ONE phase of organization in history is the process of interpretation—a process by means of which the student puts ideas into events and other individual facts of the subject. But no process of interpretation can be complete that leaves out of the content of historical facts the intentions and motives of men. The ambition of a single great man, or the plan and purpose of men in organizations—parties or nations—is a factor in the movement of history. In truth, most of the forces of history are transformed and enter human consciousness and take the form of purposes for which men struggle. The effort to attain the ends projected by men as individuals or as nations gives rise to the flow of events. What is the relation between the occurrences of history and the designs of men? In many cases the purpose is the real cause of the event—without which the event could not or would not have been. So, it is frequently said that the purpose is the final cause of the event. There is something more here than the usual relation of cause and effect. The event or other fact that grows out of a purpose is frequently related to it as means. This implies that there is some predetermined connection here. The event which is means must be of such a nature that it will aid in bringing about the realization of the given purpose. Because there is this peculiar adaptation between a means and its end, the student is able to put purposes and motives as a content into external and individual facts of history. Herein does purpose play its part as one of the organizing ideas in the subject. Without this idea put into events a large and important element

is lost, and the fact or event in so far loses significance and connection with the other facts of the study.

Without this idea many series of events could hardly be organized. How could the individual facts of a campaign become intelligible unless the student can illuminate them by the design of the head of the army? How shall it profit a student if he learn the numbers and discipline of the army, the amount and kind of arms and stores, the position of the troops, the character of the country, the movements of the battle, the strategems employed, without seeing the common idea in each—the idea that makes an intelligible whole—the purpose of the general? Of a series of events used as means the end must be seen in each. This is seen in two ways:

1. By noting *how* the means is adapted to secure the given end. There must be some peculiar relation between the Stamp Act Congress as a means and union as an end, or the colonies would not have selected this form of means to secure union. Men and nations do not choose means that are not adapted to do their work.

2. By watching the means *in the process of working out* the end in view. The very nature of means requires that it shall take part in a process, otherwise, the end could never be actualized. If the student fails to witness this process, he fails to get at least one-half of the relation which means bears to end.

It is easy for a pupil to say that the Non-importation Societies were made to secure the repeal of the Stamp Act. It is quite another thing for the pupil to point out the steps in the process by which these organizations aided in securing this end. The pupil must see one of these societies in each leading seaport refusing to send orders for more English goods, and refusing to pay for the orders last made, because they remain unsold. He must picture the consternation of the British merchant when this bit of news is received, and of the manufacturer when he learns that the merchant can order no more goods for the American market. He must see establishments closing and laborers losing their places, and so on. Finally, petitions are sent to Parliament to urge the repeal of the Stamp Act. In some such way as this, the pupil must picture the means in the process of working out the purpose.

In the process of interpretation it is helpful to distinguish between immediate and remote ends. The difference here is mainly one of degree. A remote purpose is one that can be secured by the use of many inter-

mediate steps. An immediate end is rarely the means to a remote one. Thus we say that the immediate purpose of the Confiscation Act of 1763 was the breaking up of smuggling, while its remote purpose was the collection of revenue. Evidently, the destruction of smuggling was but a means to revenue, and the act was, in its provisions, aimed directly at the illicit trade. It is just as evident that the student who can put only the destruction of smuggling into the aim of this act, fails to get its true purpose. Many other illustrations may be cited to show that remote ends, like remote causes, have more organizing value than immediate ones.

In the struggle to attain their ends men and nations bring about many results which were not planned by them, and whose occurrence they could not foresee. Men may plan and arrange means to carry out their ends, but results of an opposite nature will come from their efforts. Passion, interest, and selfishness may be the motive and the end, yet out of all these may come results that will bless posterity to the remotest generations. The selfishness of slavery annexed Texas and brought on war with Mexico, from whom was wrested an imperial domain. Yet how different the result from the aim! Morris's Hegel contains the following on this point:

"The particular historic event exists by the grace of the particular vocation of a particular human being; it is immediately what the individual intended, and is explained by his intention, but by the grace of God it acquires a character beyond what was intended, requiring a deeper and a broader explanation. The whole interest and thought of the individual may be practically confined to his immediate personal aims and restricted plans. Beyond them he may not consciously see; to aught beside them he may be indifferent. But the sequel shows them to have been the material for the accomplishment of a plan of history, which is none other than the realization on this planet of self-conscious and self-mastered spiritual existence,—man passing himself through knowledge and control of a natural world of which he is the crown, and through knowledge and love of a God who is the intimate ground and the eternal goal of all travel both of Nature and of Man. Thus God makes even the wrath of man to praise him."

This view makes the whole process of history—all its events and the ambitions of men and nations—a means in the working out of the Divine Ideal.

W. H. M.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

STRENGTHENING THE IMAGINATION AND FANCY.

THE cultivation of imagination and fancy should enable the mind to react a variety of elements in previous acts; to combine these elements readily; to make a wide range of combinations; to make thoughtful combinations.

These four things may be accomplished:—

1. By using the same work as indicated in the plan for the cultivation of the memory. This strengthens the power of the mind to react elements of previous acts and aids in strengthening the other three, but least in combining readily.

2. By emphasizing the emotional element especially, in each activity.

3. By teaching the child that mind is a universal substrate; i. e., by leading him to see that mind is expressed in each object about him. This will aid in imagination in that it will develop the idea that each thing is the embodiment of a thought and hence subject to change in order to express that thought most adequately.

The devices used in teaching this should be those which help him to make the individual universal; as, molding, drawing, sketching, painting, written and spoken language, motions in imitation of some occupation or play; those which help him to make the universal individual; as in the embodiment of man's thought in pictures, poetry, manufactured articles; and as in the embodiment of God's thought in plants, animals, rocks, metals, the elements, and rivers, lakes, islands, hills, clouds, etc.

4. By teaching the mutability of nature. This can be done through the study of the fairy story, the miracle, the myth, the legend. In each one the object is to lay aside the form and find the central thought—the hidden meaning. In interpreting these he is unconsciously learning to consider the attributes belonging to one object as liable to change, or as changed.

5. By the study of good examples of that form of literature that embodies wit, humor, and puns. This develops the power to readily see likeness of meaning amid diversity.

6. By the indirect cultivation of the imagination in connection with the regular school work. Thus in geography the pupil is led to picture out the appearance of a locality, as a village, river, mountains, etc.; in

history, to give his idea of certain persons, scenes, battles; in reading to imagine the scene and persons mentioned; as, in "The Landing of the Pilgrims," to picture the waves, the coast, the position of the woods, the kind of trees, etc.

7. By the specific cultivation of the imagination, which is the direct mode. The following suggest some of the early phases of work: Give the child sticks and have him change their position relative to each other as often as possible; the same with colored beads, blocks of wood, string, lines on the slate; have him take a number of letters and make as many words as he can from them.

THE RELATION OF ENTERTAINMENT TO PRIMARY WORK.

IN the May number of the School Journal some thoughts were presented in this department as to the extent to which entertainment should be used in the primary work of our schools. The addition of a few words setting forth a somewhat different view as to this question of entertainment may throw a little more light upon the subject and its underlying principles.

The word *entertainment*, coming to us through the French *entretiens* from the Latin *inter* and *tenis*, with the suffix *ment*, means literally that which is held between. Considered as an instrument for the realization of the aim of the school, the literal meaning of the word is, perhaps, not misleading.

Bishop Whately in his book of synonyms says, in defining the word, that nothing that is useful can be looked upon in the light of entertainment, but only that which is pursued for the sake of the entertainment itself. However, the term is commonly applied to that which engages the mind agreeably in the way of amusement.

As thought of in the school it is to be understood that *entertainment* applies to such devices as occasion in the pupil a pleasurable intellectual activity, having the minimum of will-exercise, self-direction or attention. It is associated with the thought of the passivity of the subject, the suggestion of the higher powers to the will of another; a kind of agreement following, without any degree of effort, the leadings of another. The child which is entertained merely reproduces a certain objective train of activities which of course have, at the same time, a strong element of the subjective, interest, in them, or they would not be entertaining. But here are the activities occasioned differentiated from interest, for it is pur-

subjective. When interest occasions the activity in mental work, the consciousness moves toward the realization of a preconceived and original, or individual, ideal. In entertainment this originality is replaced by reproduction, the activities occasioned are slight and hence *in itself* it is not educative in the highest degree, for the resulting activities do not exercise the mind to its full capacity. The educational value of entertainment therefore does not lie in the activities immediately occasioned; such value as it may have as a device must come from its relation to interest, either as to its absolute identity, or from what might be termed its organic relation.

Having the signification of the term in mind, our attention may be turned to the question of the extent to which the use of entertainment in primary work should be carried. This must be determined from a study of the subject (mind) and the aim; of the former in general and in the particular stage of development as to tendencies and capabilities, and the latter also as to the general and the particular.

In considering the relation of entertainment to the activities of mind without particular reference to stage we find, as before said, that it is identical with interest in part and organically related to it in the remaining activities occasioned, being identical in that the part of entertainment which holds the minds of the pupils to the subject-matter is pure interest—entirely subjective—while the remaining activities occasioned are not of the higher order, but those of reproduction, attention being nearly absent. It thus becomes evident that if entertainment is to have any particular educational value, such value will not come from the activities taking place while the pupil is being entertained, but must come through the transference of interest. In this association, a lower form or process of mind-action binds into a unity, activities which were before foreign, and hence uninteresting, with those already possessing much interest and thus, because of the *organic relation of activities*, interest is created in that which was once almost entirely foreign.

The nature of the mind would thus *seem* to demand the use of entertainment and, if we grant this to be the only means of transferring interest, we might say *does* demand its use. But another consideration presents itself; this same result may be accomplished by devices which, while not those of entertainment, are such as will bring the requisite interest into the foreign field and at the same time occasion the highest activity to which the mind of the learner can attain. The true artist in her profession should be able to transfer the necessary amount of interest to the uninteresting, the almost wholly foreign, and at the same time be calling

for the higher processes of mind action. The difference between the two would be this: in the former the purpose is accomplished, but the accomplishing activities occasioned are not truly educative; in the latter the same result is reached by a process which in itself gives great discipline. Unless special characteristics of the primary stage of development involve adverse considerations, it will not be difficult to make a decision on the basis of the character of the *subject*.

In general we may say that the same things which we have found to be true of mind without reference to periods of development are true in the primary stage. While different phases of mind-activity predominate here, yet the same standard of the educational value of any act exists in this as in any stage, and what has been said concerning interest is just as true with the primary grade as with that of the high school.

Froebel, from a careful study of the needs of child-mind and of its tendencies, conceived the idea of the kindergarten as a school for the training of infants. He of course intended the pleasant games of his system to develop the then almost entirely undisciplined mind of the child, as to prepare him for entering school when he is supposed by the state as well as by the educational world, to have attained enough mental strength to be ready to lay aside play for a few hours of the day and take up real work; or in other words entertainment, which differs from the hardest of *interesting* work only in the intensity of the mental activity, has now disciplined the pupil to such an extent that he is ready for *interesting* work. This does not mean that he is to be over-weighted with that which is beyond his capacities, but it does mean that he is ready to do that which will require of him as great a degree of thought as he is able to give to it. It is the task of the teacher to arrange and present this work in such a manner as will give it the requisite interest. In the pupil's own stage of development of course the proper activities are to be exercised but in doing this the teacher should have in view the purpose of the school as an institution, the preparation of the pupil for earnest *work* in the great world of thought.

Entertainment has its proper place especially with the young, but sufficient culture of the kind it confers is given by the other institutions of society so that it is not made necessary for the school to take upon itself that which is foreign to its purpose. It may be true that, if this purpose were made the acquisition of knowledge, entertainment would be a proper device. The Jesuits had some such a thought of the school as this, since they aimed at training the receptive and reproductive faculties only, and as an outgrowth of this idea came to use every possible device for making

their work entertaining. "The *instruction* of youth will always be best when it is pleasant." "That which enters into willing ears the mind, as it were, runs to welcome, seizes with avidity, carefully stows away, and faithfully preserves." Such were their maxims. In the same line of thought the author of the preceding statements said in referring to work in reading: "All difficulties *should be carefully explained* whenever they occur." The Jesuits were very successful in accomplishing their aim; it was said of their schools that a pupil could *learn* more in half a year than in other schools in two years.

But the idea of the educational world of the nineteenth century is not that of a mind converted into a *storehouse* where facts may be "carefully stowed away," nor does this idea sanction such methods of instruction as are suggested by the Jesuitic mode of teaching reading. The keen, accurate, logical and independent mind comes only from a long course of training in which the mind has been continually kept at its highest degree of activity, whether it be in striving with all its powers to arrange the pieces of a dissected picture card properly, or in another stage struggling through the abstractions of philosophy; in either case the activity occasioned is not one arising from entertainment, and such must ever be the line of action if the goal is to be attained.

While entertainment may be profitably used during the intermission of a rainy day, or at other exceptional times, yet it seems that a study of the meaning of the term, in relation to the mind and to the purpose of the school, shows that it has no true place in the regular work of education *in the school*, not even in the primary grades. W. M.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal of Indianapolis Schools.]

SHORT NOTES.

TARDINESS.—Is a pupil tardy who is hustled into his room by the teacher just before the tardy-bell rings? Does such work develop punctuality in the pupil? What *is* the effect on the pupil? It is easy to see what the effect is on the record of attendance and tardiness. Do we teach school for the sake of the record?

IT PAYS to decorate the school-room if it is tastefully done. It costs something to get pictures, flowers, etc. There are very few teachers

who can afford to spend a part of their wages in that way. But it costs nothing to have a place for everything. There is no excuse for having an unused broken flower-pot in a window for six months, a rusty tin in another, two or three broken pointers in the chalk trough, little circles on the desk made by leaving glasses of water on the varnished top. It is wrong to have a room look "tacky." Neatness costs nothing so long as money is concerned, but it is worth much in the influence over the school.

DO TEACHERS continue to teach children to read by minding the stops? We have heard children *call* the "stops" as they read, but this was a common thing several years ago. We read the answer, "Yes, sir," as follows: "(comma) sir (period)." Later, we learned to keep the voice up at a comma and let it fall at a period. This should not be taught, because it is not so.

A TEACHER should always be ready to tell what his purpose is in a recitation. No teacher has a right to begin a recitation without a definite and worthy purpose in mind. He should also have decided on the means he expects to use to reach this purpose. If he must stop in the middle of a recitation and send for a map, it shows either forgetfulness or a lack of foresight or forethought.

SPELLING.

Pupils will not unconsciously learn to spell words correctly by seeing them correctly spelled. This will help, but to this seeing frequently we must add spelling frequently. He should learn, consciously, how to spell the words, and then should spell them so often that he finally unconsciously spells them correctly. This is what gives rise to what is often called "drill." Many teachers fail to use this drill to the best advantage. They drill just as much on what the pupil knows as on that which he does not know. Fully one-half the words in any spelling book can be spelled by three-fourths of the pupils without drill.

From a line of 28 words in a review lesson in a spelling book widely used we select six words that pupils might misspell. They are, gnarl, volcanoes, salable, icicles, nuisance, apparel. These words require special conscious study. The pupil must know how to spell them and he should *know* that he knows how to spell them. The first one is peculiar in that his attention need not be called to it many times, but it needs more than a passing notice. Ask if he knows of any other words

beginning with gn where only the n is sounded. Let the class give as many as they can recall. After this talk spell the word. Write it carefully and thoughtfully, not in a sentence but alone, so that the whole thought may be put on mastering the *form* of the word. Do this often enough to fix the form of the word in the mind and to form a *habit* of spelling it correctly. Follow this with a sentence containing the word in question.

Volcanoes has only one difficulty in it. This is whether the last syllable contains an *e*. Call attention to the fact that it does, and spell and *spell* and SPELL. *Salable* has no *e* in the first syllable. Spell it, and as you spell it think that it has no *e* in the first syllable.

So treat every word that has any peculiarity, and the less marked the peculiarity the harder it will be to remember. *Apparel* is a harder word for the pupil to remember than *gnarled* is.

TEACH PUPILS TO THINK.

Every teacher believes that it is his business to teach his pupils to think. Yet it is often claimed that our schools do not give the pupils this power. The teacher often says that his pupils do not think. He tells them so and blames them because they do not. He does not seem to know why they do not think, and therefore does not know what to do to make them think. Some do not seem to know what it *is* to think, and consequently are not able to lead the pupils to think. They do not think themselves. To think is to put things together that belong together. Teachers who do not think, in their attempt to get children to think, ask questions that bring things together that have nothing to do with one another.

The class has learned in the proper manner that a third of any thing is one of three equal parts of it. The teacher says, "I have 12 apples that I wish to divide equally among 3 girls. How many will each girl get?" The answer, 4 apples, comes promptly from many members of the class. Is this sufficient evidence that they have done the proper "thinking?" Many think it is. Some think not, and so they call for an explanation. The pupil often repeats the problem, not because he needs to, but as a mere form, and then says: "If you divide 12 apples among 3 girls each girl will get 4 apples." This is accepted by some, but there are others who expect the pupil to say that each girl would get $\frac{1}{3}$ of the apples, which is four apples. This is better because it suggests the process used to obtain the result. There are teachers who push the pupil still further by such a question as, "How did you know that

each girl would get *one-third* of the apples. If such an answer as "Because 4 is one-third of 12" comes, the teacher knows that the pupil is not putting together that which belongs together. If a pupil is allowed to go on in that way, when he reaches problems whose answer he can not get by "inspection" he will fail, because he has not learned to think. The failure to get those problems is not serious if the failure ends there, but he will fail to solve the problems of life for the same reason, viz., he has not learned to think.

The teacher then is justified in asking the pupil such questions: "What made you think of *one third*?" The answer will likely be that there were three girls to get the apples. The teacher then quietly suggests that perhaps one girl got three, another four, and the other five. The pupils then tell the teacher that he said the apples were to be divided *equally*. The teacher then asks again, "What made you think that each girl would get one third?" "Each was to get the same number as the others, there were three of them, so the twelve apples must be divided into three equal parts. When any thing is divided into *three* equal parts, one of those parts is called a third." The pupil now has made use of all the facts necessary to solve this problem. The answer is no more valuable than before, but the *pupil* is worth more. He is learning to think.

No one will insist that *all* of this need be said every time a pupil is asked to recite. The teacher should always be certain that the pupil is doing the thinking in obtaining results. He should distinguish between the movement of the mind in determining that $\frac{1}{3}$ of 12 is desired and in telling what $\frac{1}{3}$ of 12 is. He remembers the latter just as he remembers that he is 10 years old. Of course if he forgets what it is and remembers only what is meant by a third, he may take twelve objects and place them in three different places by putting first *one* in each of the three places, then another, and so on till the 12 are all used, and thus find out for himself what $\frac{1}{3}$ of 12 is. This may or may not be just the thing to do, at the stage of the instruction, owing to the pupil's style of mind, time at teacher's disposal, etc.

Is this kind of work within the grasp of pupils in first, second, and third grades? Don't answer without thinking about the work carefully and afterward trying it with pupils in your charge. Try something like the following:—

1. Mary shelled 8 qts. of green peas and Ethel shelled $\frac{1}{2}$ as many. How many gallons did they both together shell?
2. In running from the door to the gate Harry took six steps a yard long. How many feet is it from the door to the gate?

3. May had 50 cents. She spent $\frac{1}{2}$ of it for a pansy, $\frac{1}{4}$ for a rose, and $\frac{1}{4}$ for candy. How much had she left?
 4. George bought a peck of potatoes at 40 cts. a bushel. What did he pay for them?
 5. Out of 18 boys, 12 are playing marbles and the rest are looking on. What part are looking on?
- May we expect a third grade pupil to explain the last about as follows?
"18 boys—12 boys are 6 boys. 6 boys are $\frac{1}{3}$ of 18 boys. Then $\frac{1}{3}$ of the boys are looking on."

GENERAL INFORMATION.

MORE STATES.—A bill for the admission of Wyoming and Idaho as States has passed the House. Wyoming claims a population of 120,000 and Idaho 125,000. Some think there is danger of being too hasty in admitting states. They cite Nevada as a state that was admitted too soon. New Mexico and Arizona are asking for admission.

HENRY DAVID THOREAU, an American author, often called the "poet naturalist," lived alone in a tiny house which he built himself, on the shore of Walden Pond near Concord, Mass. He fished and hunted and lived a happy, out-door life, which he has described in one of his books, "Walden, or Life in the Woods." He determined to work no more than was necessary to provide for his limited wants, and his expenses amounted to about \$70 a year. He had many peculiarities—he never voted, never attended church, and never paid taxes.

LITERATURE IN SCHOOLS.—The notion that literature can be taken up as a branch of education, and learned at the proper time and when other studies permit, is one of the most farcical in our scheme of education. It is only matched in absurdity by the other current idea, that literature is something separate and apart from general knowledge. Here is the whole body of accumulated thought and experience of all the ages, which indeed forms our present life and explains it, existing partly in tradition and training, but more largely in books; and most teachers think, and most pupils are led to believe, that this most important former of the mind, maker of character, and guide to action can be acquired in a certain number of lessons out of a text-book! Because this is so, young men and young women come up to college almost absolutely ignorant of the history of their race, and of the ideas that have made our civilization. Some of them have never read a book, except the text-books, on the specialties in

which they have prepared themselves for examination. We have a saying concerning people whose minds appear to be made up of dry, isolated facts, that they have no atmosphere. Well, literature is the atmosphere. In it we live, and move, and have our being, intellectually. The first lesson read to or read by the child should begin to put him in relation with the world and the thought of the world.—*Charles Dudley Warner, the Atlantic.*

FACTS ABOUT AFRICA.—According to Stanley the population is about 250,000,000 (nearly four times as great as the United States), the South alone having 100,000,000. There are 600 languages. More than half the continent has been annexed to foreign powers. Great Britain, a matter of course, has secured the lion's share, including the Suez canal. France and Germany each own more territory than at home, while Belgium and Italy have no inconsiderable portion. European powers have a foothold all along the coast, north, south, east, and west, besides maintaining a stronghold in the center. They have opened up commerce and poured in streams of knowledge, but compared with the dense darkness, the tiny rays of civilization are but mere specks of light. The importation of rum has had a terrible effect on the natives, but there is a vigorous fight now against the liquor traffic.—*School Journal.*

CONFISCATING MORMON PROPERTY.—Confiscation of property, except as a war measure, has been a very rare proceeding in our country. By a recent decision of the Supreme Court, property to the amount of \$1,000,000 or more will at once be confiscated by the Government.

In 1851 the Legislature of the Territory of Utah passed an act incorporating the Mormon church. A few years after the legislature amended the charter so as to give the corporation the right to regulate marriages and forms of worship, and to place its property in charge of trustees. Years afterwards Congress passed a law annulling that portion of the charter relating to marriages, thus asserting the right of Congress to override territorial legislation. The same act prohibits any religious corporation in a territory from acquiring real estate of greater value than \$50,000 on penalty of its forfeiture to the United States.

This law has never been enforced against the Mormon church, and it has become an enormously wealthy corporation, using all its power to maintain the doctrines which are so odious to the rest of the country. In 1887 Congress passed an act annulling the charter of the Mormon church and providing for the appointment of a receiver and the confiscation of all its property in excess of \$50,000, which is not used for purposes of worship or burial.

The Mormon church trustees entered suit in the Supreme Court to have this act declared unconstitutional. The decision has just been rendered sustaining the constitutionality of the act which will at once be enforced. It is hoped that the Mormon church will soon cease to be a disgrace to our nation.—*Week's Current.*

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

THE withdrawal of Prof. Carhart from the race leaves only John W. Barnes and James H. Henry as candidates for the state superintendency on the Republican side.

WITH this number of the Journal the time of a large number of subscribers expires. If they will renew at once they will save the possibility of any break in the file of the Journal and save the editor much trouble.

DISTRIBUTION OF SCHOOL REVENUES.—Last month's Journal contained an article on the distribution of school revenues, by Supt. Machan. A full and free discussion of this subject is invited. There is a pretty general agreement that there are some defects in the present method, but there is a diversity of opinion as to what the remedy should be. This is a matter of so much importance that we can not afford to make a mistake, and so there should be the fullest and freest discussion, not with a purpose to establish a theory, but in order to find the truth and do justice. The Journal asks that those who write try to distinguish between a just law and a defective administration of law.

THE AMERICAN BOOK COMPANY has announced a general reduction in the prices of books of from 20 to 33½%. It proposes to make the wholesale price the retail price and print the price on the book, and thus protect the purchaser against the local dealer. It further proposes to send books to any one free of postage on receipt of printed price. And it proposes still further to sell direct to school boards at 20% under present wholesale prices.

This is the first time in the history of the world that a "trust" has made its bow to the public by a sweeping reduction of prices. Rather a strange proceeding for a so called "syndicate," is it not?

THE DE PAUW NORMAL SCHOOL has been abolished, or at least suspended. This is a misfortune to the state, as the school was growing rapidly, was purely professional and the work done was of a high order. While De Pauw has in prospect a very large endowment fund, much of it is not yet available, and it is understood that one cause of the suspension was the lack of funds. Arnold Tompkins, the head of the Normal Department, and W. H. Mace and Mrs. Tompkins, his principal assistants, are among the ablest and most progressive

educators in Indiana, and it is hoped that they will not have to leave the state in order to find remunerative employment.

Later.—Since the above was in type the writer is creditably informed that the chief cause for abolishing the Normal School was that in the opinion of President John it did not properly belong to a university. The subject was discussed for three days, and then the proposition to abolish was carried by a vote of 14 to 12. The Journal is not in possession of all the arguments used on either side, but at present writing is wholly unable to divine the line of argument that would justify the abolition of a normal department doing the highest order of scientific professional work, and at the same time would retain as a part of the university a music department, an art department, a military department, and a preparatory department. The board seems to have no conception that the question of public school education is a great question of applied philosophy, and as such falls within the province of a university, as much as does applied mathematics. From the Journal's stand-point De Pauw has made a serious mistake.

In many of the States it is now the law that the physical effects of alcohol shall be taught in the public schools. The potency of this law remains with the teachers. It is universally considered that in the passage of these laws and in the preparation of text-books to comply with the law, we have made great progress in the great work of temperance reform. But unless the teachers make a special effort to comply with the intent of the law by diligently persisting in instruction along this line, the law will avail but little. Teachers, therefore, the leaders of advanced thought, should see to it that the most is made of the opportunity to elevate the race.—C. M. LEMON.

TIME may wear away the imperfections of the cutter from the hardest marble; mature minds may counteract the poison of false preaching, but eternity alone can eradicate the evils of incompetent teachers, stamped indelibly upon the minds of our children. He who puts on the robes of a teacher should be as wise as Solomon and as God-like as Abram. Yet we are sorry to say that some people think that every boy over sixteen or girl over fifteen who attends an eight weeks term of subscription school—improperly called a "normal"—should be licensed by the county superintendent to "teach" school. Many who apply could not properly "keep" school. It is sometimes hard to say to the daughter of a poor widow whose maintenance depends upon her daughter's employment that she can not have license. There are various cases where charity and benevolence plead with eloquent lips and sorrowful tears, and yet the county superintendent must turn a hard cold heart to the applicant and resolutely and firmly say "No." If the school fund was a charity fund it would not be thus. If the injury ended with merely drawing the money it might be softened down and occasional imperfections waived, but think what a great injury might be done somebody's darling—what a great wrong might be inflicted upon twenty to sixty bright, intelligent boys and girls by the granting of one license to an undeserving applicant. Better that ninety-and-nine worthy teachers be refused license than that one unworthy one succeed.—W. M. MOSS, *Co. Supt., in Bloomfield Democrat*, June 20, 1890.

STRICT HONESTY.—In the spring of the year, 1833, Lincoln was appointed postmaster of New Salem, and held the office for three years. Its emoluments were slender and its duties light, but there was in all probability no citizen of the village who could have made so much of it as he. The mails were so scanty that he was said to carry them in his hat, and he is also reported to have read every newspaper that arrived; it is altogether likely that this formed the leading inducement to his taking the office. His incumbency lasted until New Salem ceased to be populous enough for a post-station and the mail went by to Petersburg.

Dr. Holland relates a sequel to this official experience which illustrates the quaint honesty of the man. Several years later, when he was a practicing lawyer, an agent of the Postoffice Department called upon him, and asked for a balance due from the New Salem office, some \$17. Lincoln arose, and opening a little trunk which lay in one corner of the room, took from it a cotton rag in which was tied up the exact sum required. "I never use any man's money but my own," he quietly remarked. When we consider the pinching poverty in which these years had been passed, we may appreciate the self-denial which had kept him from making even a temporary use of this little sum of government money.—*Century*.

ANSWERS TO STATE BOARD QUESTIONS.

There is a difference of opinion among the readers of the Journal in regard to the publication of answers to the State Board Questions. The editor has before him a letter (and it is only one of many of the same kind) finding serious fault with the Journal because it does not contain *all* the answers. He says only about two-thirds of the questions are answered, and that if there is one that he "specially wants that one is sure to be omitted."

Then again there are many teachers who criticise the Journal severely because it gives any of the answers. They insist that the space occupied by the answers could be filled by matter that would be worth a vast deal more to the teachers, and they raise the question as to whether teachers generally would not be better off if left to dig out answers for themselves.

At present the Journal sees no way of satisfying both parties, but will continue to give most of the answers. The purpose is to omit all answers that can be readily obtained by referring to any ordinary text-book. The answers are given to satisfy a large demand on the part of young teachers who wish to test their own work and who wish to review subjects.

TROUBLE AT INDIANA UNIVERSITY.

Near the close of the college year certain young men of peculiar tastes thought to have some *fun* by issuing a "Bogus." This Bogus was a vile sheet, using in a slanderous way the names of professors and students. It was printed in a little country village more than a hundred miles away and circulated in the dead

of night. Only nine persons knew of it and only five or six were actively connected with it, and every precaution was taken to keep the authorship a secret.

The faculty and a great body of the students felt that the University had been disgraced and at once instituted means for detecting the guilty parties. In due time every detail and every guilty person was known. Of the nine that had knowledge of the affair one was reprimanded, two were suspended, and six were either expelled or dropped from the rolls, which amounts to the same thing, as they can not return to college.

The Journal wishes to commend, in the highest terms, the conduct of the faculty in this matter. If the faculties in more of our colleges had more "back bone" we would hear less frequently of outrages committed by some of the festive gentlemen (?) that frequent the halls of our institutions of learning. The ruffianism carried on and permitted in some of our colleges is a disgrace to our civilization. When a young man ceases to be a gentleman he should cease to be a member of a respectable college or university.

THE LAST CALL FOR ST. PAUL.

The arrangements are now complete for the St. Paul meeting. Tickets will be on sale July 1-7, and are good returning till July 15, but can be extended to St. Paul so as to be good returning till Sept. 30. No arrangements could be made for stopping over either going or returning. The rate is a single fare for a round trip *plus* \$2, which pays the initiation fee to the Association. The rate from Indianapolis is \$16.50 + \$2 = \$18.50. The National Council opens its session July 4, but the main Association does not begin till July 8.

Indiana teachers can not all start from one point, but they are practically unanimous in their intention to go from Chicago by the "Burlington" route. This runs several hundred miles along the bank of the Mississippi River and is the popular line. A special teachers' train will run over this route, leaving Chicago at 9 o'clock a. m. Monday, July 7, and reach St. Paul that evening about 10 p. m. Many Indiana teachers will reach that train. Others will reach Chicago too late for this special train, and will take an evening train over the same road and reach St. Paul next morning. Those who do this can leave St. Paul in the morning returning and have the river scenery on the return trip.

Teachers preferring to go by Peoria or St. Louis can do so at the same price and can secure the same river scenery, as the Burlington connects at both these places. Those who go over the above route from Chicago can, by seeing the agent at St. Paul, exchange their tickets and get others that will take them to Duluth and there secure boat passage, including berths and meals, all the way round to Chicago, by paying \$16.50 extra. This also secures the privilege of stopping off at any points on the lakes.

W. H. ELSON and L. H. Hadley are conducting a successful normal, now numbering 80, at Rockville.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN MAY.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

GEOGRAPHY.—1. In what way do the animals of Australia differ as a whole from those of other continents?

2. Distinguish between islands due to land-forming and land-wearing agencies. Give examples of each.
3. What are the chief obstacles to the completion of the Panama Canal?
4. What are the chief products of Cuba?
5. Where are Tacoma, Bologna, Leadville, Berne, Callao?
6. Bound Chili. What is its capital? Its principal seaport?
7. Compare Colorado and Switzerland as to surface, climate, etc. To what are the differences chiefly due?

GRAMMAR.—1. Show the difference in the way italicised words modify.

- (a) The *cold* ice was refreshing.
- (b) The *cold* water chilled him.

2. Analyze: Shakespeare's metaphor, "Night's candles are burnt out," is one of the finest in literature.

3. What uses may the noun clause have in the sentence?
4. Give sentences to illustrate each use of the noun clause.
5. Show how you would make clear to a young pupil the use of *when* in this sentence: I will go *when* you come.
6. Use *like* in a sentence as an adjective; as an adverb.
7. What parts of speech may *that* be? Give sentences to illustrate.
8. Correct, if necessary, and give reasons: (a) I know that it was he. (b) I knew it to be he. (c) I expected to have gone.
9. How may adjectives be compared? Give an example of each form of comparison.
10. Give the principal parts of ride, sit, drink, catch, and eat.

(Answer any eight.)

PHYSIOLOGY.—1. Describe the hip joint.

2. Give three important functions of the skin.
3. Trace fully the blood from the right auricle to the left.
4. Describe the lungs.
5. What change in food takes place in the stomach? How is it produced?
6. What important changes in the blood take place in the lungs? How are these changes produced?

7. What instruction would you give your pupils in regard to habits of sleeping?

8. What are lacteals? What are their uses?

9. Name the two kinds of nerves, and state the function of each kind.

(Answer any seven.)

U. S. HISTORY.—Write the history of the development and extension in this country of the right of suffrage, from the founding of Jamestown till the present time.

Write the full history of the acquisition of all our territory added since the adoption of the Constitution, showing what dangers to our national existence have grown out of some of these acquisitions, and what dangers have been avoided by others of them.

ARITHMETIC.—1. Divide $\frac{2}{3}$ of $35\frac{1}{2}$ by $\frac{1}{4}$ of $8\frac{3}{4}$.

2. What is the difference between the L. C. M. and the G. C. D. of two more numbers?

3. What is the least number that will exactly contain $3\frac{3}{4}$, $5\frac{1}{2}$, $2\frac{1}{4}$, and $3\frac{1}{2}$?

4. Show how to divide one fraction by another.

5. Two persons join in purchasing some property, one paying \$1,250 and the other \$1,000. If the property rise in value to \$3,750, what will be the amount of each man's share of the gain?

6. Bought goods as follows: March 22, \$200 on 2 mo. credit; March 25, \$300 on 3 mo. credit; June 16, \$500 on 2 mo. credit; July 12, \$200 on 4 mo. credit. What is the equated time of payment?

7. A note of \$250 is dated January 1, 1888, with interest at 7%. Indorsed June 1, 1888, \$6. Indorsed January 1, 1889, \$21.50. What was due July 1, 1889?

8. A man was offered a house and lot for \$2,250 cash, or \$2,300 in 3 months. Did he make or lose, and how much, by accepting the latter offer, money being worth 6%?

9. When gold is 20% premium, what is the discount on greenbacks?

SCIENCE OF EDUCATION.—1. What is it to think; to believe; to know?

2. What is the difference between proof and demonstration? In what class of subjects is demonstration possible?

3. What is a self-evident or self-evincing truth?

4. What are the reasons for out-door recesses? What objections exist to this plan?

5. Define consciousness. How do the things known by consciousness differ from the objects known by sense-perception?

6. What are the reasons for requiring pupils to be prompt and regular in the attendance on the school?

7. What is the reason for supplementary reading in the school?

8. What is the function of instruction in music in the school?

9. What is the educational value of analyzing sentences? Of parsing?

10. Give the title and author of the professional text used this year by the

Teachers' Reading Circle. What are the two grand divisions of the book?
(Answer any five.)

READING.—“What know ye of the world immense,
Beyond the narrow ring of sense?
What should we know, who lounge about
The house we dwell in, nor find out,
Masked by a wall, the secret cell
Where the soul's priests in hiding dwell?
The winding stair that steals aloof,
To chapel mysteries 'neath the roof?”

1. Write ten questions such as you would give a pupil in order to bring out the thought in the above selection. 10 points, five each.
2. Read a selection to be marked by the superintendent. 50

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. Explain what is meant by the expression “narrow ring of sense.”

2. Why is it said to be *narrow*?
3. What is “the house we dwell in?”
4. In what way do we “lounge about” in this house?
5. What wall is meant?
6. What are the “soul's priests?”
7. What is the “winding stair?”
8. What place is referred to as “beneath the roof?”
9. What is meant by “chapel mysteries?”
10. What is the figure in the last three lines?

ARITHMETIC.—1. $\frac{2}{3}$ of $35\frac{1}{2} + \frac{4}{5}$ of $5\frac{2}{3} = \frac{2}{3} \times \frac{71}{2} \times \frac{4}{5} \times \frac{2}{3} = \frac{488}{45} = 1\frac{88}{45}$, Ans.

3. Reduce each number to the form of a fraction in its lowest terms; find the L. C. M. of the numerators and divide it by the G. C. D. of the denominators. This gives 30225, Ans.

5. The gain to be divided is \$1500. The first share will be $\frac{1000}{1250} = \frac{4}{5}$ of \$1500 = \$666 $\frac{2}{3}$. The second share will be $\frac{5}{6}$ of \$1500 = \$833 $\frac{1}{2}$.

6. May 22— $200 \times 0 = 0$

June 28— $300 \times 37 = 11100$

Aug. 16— $500 \times 86 = 43000$

Nov. 12— $200 \times 174 = 34800$

1200

88900

$88900 + 1200 = 74$. 74 days after May 22 = Aug. 4, Ans.

7. Principal.....\$250.00
- Interest for 5 months..... 7.29 $\frac{1}{2}$
- Payment..... 6.00
- Interest unpaid..... 1.29 $\frac{1}{2}$
- Interest on principal for 7 months..... 10.20 $\frac{1}{2}$

Total interest.....	11 50
Amount due Jan. 1, 1889.....	261 50
Payment.....	21 50
Balance due.....	240 00
Interest on \$240 for 6 months.....	8 40
Amount due July 1, 1889.....	248 40
8. The present worth of \$2300 in 3 months at 6% is \$2266.01, nearly. \$2266.01 — \$2250 = \$16.01, loss.	
9. Assume 100% = greenbacks; then 120% = gold; and 20% = preminm. $20 \div 120 = \frac{1}{6} = 16\frac{2}{3}\%$, the required discount.	

PHYSIOLOGY.—1. The hip joint is a ball and socket joint, giving great freedom of motion to the leg. The head of the femur is rounded like a hemisphere and fits into a similar cavity in the innominatum. The femur is held in place by an interosseous ligament and by the capsular ligament which incloses the joint.

2. (1) It is a covering and a protection to the body.
- (2) It is an important organ of excretion.
- (3) Absorption and secretion.
3. From the right auricle the blood goes to the right ventricle through the mitral valves; then it is forced through the pulmonary artery to the lungs; in the lungs it returns through the pulmonary vein to the left auricle.
4. The lungs are two vascular organs situated in the cavity of the chest, one on each side and extending to the diaphragm. They are spongy in their texture, being made up of an infinite number of small air vessels. The blood from the heart passes through the lungs, coming in contact with the air, absorbing oxygen and giving up its impurities.
5. In the stomach the food is acted upon by the gastric juice, by which the albumen is dissolved and converted into albuminose, and all the food is changed into a liquid called chyme.
6. In the lungs the blood comes in contact with the air through the thin walls of the air cells, receiving through these walls the oxygen from the air, and giving up its carbonic gas and other impurities. It is also changed in color from a bright crimson red. This interchange of substances takes place through the walls of the cells by what is called endosmose and exosmose.
7. Sleep should be taken at regular hours and should not be less than eight hours. Sitting up late at night and sleeping late in the morning should be avoided. Sleeping apartments should be cool and thoroughly ventilated.
8. The lacteals are minute vessels which commence with the inner coats of the intestines and terminate in the thoracic duct. They absorb the chyle from the contents of the intestines and convey it into the circulation.
9. The nervous system may be divided into two parts, the cerebro-spinal and the sympathetic. The first presides over the sensations and voluntary actions; the second serves as a motor nerve to many of the internal organs of the body.

body; it is also a sensitive nerve to these organs, and presides over the action of the blood vessels.

GEOGRAPHY.—1. Australia has no large or fierce animals. The kangaroo is the largest. Many species of marsupial animals are found there.

2. Islands due to land-forming agencies are generally low and flat, and surrounded by shallow water, as deltas formed at the mouths of many large rivers. Islands due to land-wearing agencies are generally surrounded by deep, swift water, and have precipitous sides. They are generally found along the coasts of the ocean where there are strong currents or continuous action of the waves.

3. The immense amount of earth to be removed; the unfavorable character of the land through which the canal passes; the unhealthy climate, making it almost impossible for foreigners to live there; and the immense expenditure of money required.

SCIENCE OF EDUCATION —1. The faculties of the mind are generally divided into three classes: the intellect, sensibilities and the will or knowing, feeling and willing. The intellect is the power of the mind by which we think and know. Whenever any of the faculties of the intellect are engaged we *think*. The products of the intellect are ideas and thoughts. Believing and knowing are intuitive operations of the mind and are the products of judgment. In judgment the mind compares two objects of thought and unites them into a proposition. But the truth of this proposition or the result of the judgment, either believing or knowing is an act of intuition.

3. Self-evident truth is an intuitive or primary truth. It admits of no proof as it carries its own evidence in itself, as "the whole is greater than any of its parts," no sane mind can for a moment doubt its truth.

5. Consciousness is the power by which the mind knows its own states and actions. Consciousness deals with the mind itself, its states and its actions, and its feelings. It has no reference to outward objects. Sense perception has reference to outward objects. Consciousness deals with the *ego*—sense-perception with the *non-ego*.

7. It drills in sight reading; it prevents rote in memory reading; it furnishes a pleasant variety and change in the work; it drills the pupils in spelling and forming words.

8. It gives the power to interpret written music; it cultivates the love of the beautiful; it makes the school pleasant and attractive.

9. Analysis and parsing enable pupils to see the correct use and relation of the words in a sentence. They teach the use of good language; they enable the pupil to express his thoughts in proper form; they often aid in getting the correct meaning of a sentence.

GRAMMAR.—1. *Cold* in the first sentence is superfluous. *Cold* in the second sentence is emphasized to denote a particular kind of water.

2. This is a complex declarative sentence. *Metaphor* is modified by *Shakespeare's* and the clause "Night's candles are burnt out. *One* is modified by the phrase of *finest*; *finest* by *the* and *in literature*. *Candles* is the subject of

the appositive clause, and *are burnt* is the predicate. *Candles* is modified *night's*. *Are burnt* is modified by *out*.

3. Subject, predicate, object, or appositive.

4. *Who wrote the letter*, is the question. The proposition was, *That should be protected*. They knew *who did that*. Grant's terms, "I propose move immediately on your works," were accepted.

5. By asking questions to bring out the meaning. The following might be asked: What word connects the propositions, "I will go" and "you come"? What word denotes time?

6. That was a *like* circumstance. Solomon was not arrayed *like* one of these.

7. "I know that it was he," is correct. "I knew it to be him." Use *he* with the infinitive *to be*. I expected *to go*. *Expected* implies futurity, which can not be expressed by the present perfect tense.

MISCELLANY.

A SUMMER NORMAL will be held in Hartford City beginning July 14, conducted by Wm. Reed and Jay A. Hindman.

THE HAMILTON CO. Normal will open in Noblesville July 25, under the care of J. F. Haines and Co. Supt. E. A. Hutchens.

THE STATE UNIVERSITY has abolished its preparatory department and ranged with the Bloomington high-school to do its preparatory work.

THE ELKHART CO. Normal School will open for 7 weeks at Goshen July 14, with W. H. Sims, G. L. Harding, J. N. Swart, and D. J. Troyer as instructors.

UNION CHRISTIAN COLLEGE, at Merom, had an unusually prosperous year and an unusually interesting commencement. Its outlook for next year is very flattering.

THE SOUTHERN IND. NORMAL COLLEGE, located at Mitchell, has changed hands. E. E. Urner and G. E. Williams have bought out E. F. Sutherland and have taken charge as associate principals. They are both graduates of the school and fully understand its spirit and its methods, and hope to retain all old friends and make many new ones.

MOORE'S HILL COLLEGE is fortunate in securing as its president Dr. J. C. Martin. He had been president of the college once before, and had never lost his interest in it; and owing to his superior work the college had never lost interest in him. He will organize, in connection with the college, a normal department, and give it special attention.

HANCOCK CO. Reading Circle enrolled every teacher in the district schools and all in the city schools but two. Beside these 57 persons not teachers all or part of the work and were enrolled members of circles. Thirty-eight sets of books were taken by persons not teaching. In many instances two persons

joined to purchase the books and did the work together, thus making the 57 members. With a total county and city teachers of 120, we had 175 Reading Circle members. This is a fine record, and Superintendent Jackson deserves congratulations.

TOPEKA, KAN.—The city superintendents of Kansas held a meeting at Topeka in May, and among those present were several ex-Indiana superintendents. The Topeka schools, of which John M. Bloss is superintendent, were spoken of in the highest terms. R. W. Stevenson, of Wichita, formerly of Columbus, Ohio, said: "I do not know that I ever enjoyed a visit through city schools more. I had heard much of the Topeka schools and their high standard, but I am sure no one has ever said too much of them. I was particularly interested to-day and investigated thoroughly. I found nothing to criticise and everything to commend. I have visited the best schools of a great many of the large cities of the East and I do not hesitate to say that the Topeka schools equal any of them." This is a high compliment for our old friend Bloss, and the Journal extends congratulations.

DE PAUW.—We are in receipt of the new Year-Book and Triennial Register of De Pauw University, Greencastle, Ind., for the year 1889-90. The book shows that the University has enjoyed a year of unexampled prosperity. The entire net enrollment of students is 1038, and of professors and instructors, 56. This is the largest attendance in the history of the institution, all the departments having had a healthy increase. The entire number of graduates since the organization of the University exceeds 1200. There are 70 graduates in the senior classes of the present year. The book contains a history of the University, its present plan of organization, the method of government and instruction, a list of its officers, including trustees and faculties, a description of its material equipment, a full account of all the eight distinct schools of which it is composed, with their courses of instruction and lists of students, and a complete list and brief history of all its alumni. Graduates of the commissioned high-schools are admitted without examination on the work they have already completed. The new President, Dr. J. P. D. John, who entered on duty at the beginning of the year, was formally inaugurated June 19. De Pauw is a great and growing University, and one of which not only the State of Indiana, but the entire West, may justly be proud.

STATE CONVENTION OF COUNTY SUPERINTENDENTS.

The Association met June 17, J. O. Lewellen presiding, and J. W. Cravens acting as secretary. Sixty-three Supts. responded to roll-call, and others came later. The program was an unusually good one, and the general feeling was that it was one of the best meetings in the history of the convention. As it was voted to print the minutes and papers in full in pamphlet form, it will not be necessary for the Journal to speak of the exercises in detail. The secretary employed a short-hand reporter and the minutes will be very full.

The resolutions passed by the convention have a general educational interest and we give them below:

Resolved, 1. That we are in favor of amending the law so as to give a just and equitable distribution of the school revenues.

2. That we favor an amendment of the renewal license law so as to make requirements comply with the original spirit of said law, which was to allow only to teachers holding three years licenses.

3. That we favor increasing the term of county superintendent to four years on a salaried basis, with provisions for clerical assistance when necessary.

4. That we are opposed to sending MSS. from one county to another upon the written request of the Supt. who is to grade the MSS.

5. That we favor the amendment to Section — so as to cut off the patronage of the patrons to exclude any of the common school branches.

6. That we recognize the benefit derived from the Teachers' and Young People's Reading Circles and heartily indorse them.

7. That we favor raising the standard of license to the following:

For six months license.....average of 75; minimum 65

For twelve months license.....average of 85; minimum 75

For twenty-four months license.....average of 90; minimum 80

For thirty-six months license.....average of 95; minimum 85

8. That we favor the holding of township and county exercises for the encouragement of graduation from the district schools, and that we favor such arrangement as will enable the common school graduates to go through the school course of study free of tuition.

9. That we favor the publication of the Minutes of the Association for distribution to County Superintendents.

10. That the State Board of Education is hereby respectfully requested to comply with the wishes of this body relative to the "review" feature of the examination work, as expressed in a resolution which was passed at the Association of County Superintendents June 16, 1889, viz:

(1) That the book upon which applicants shall be required to write at the examination be specified at least six months in advance of such examination.

(2) That five questions be prepared by the State Board of Education on the book selected for each examination; provided, that the other work of the examination be so curtailed that the whole work shall not exceed the amount that has been heretofore required.

11. That we hereby tender our thanks to the officers of the Association for their able work and courteous treatment, and especially to our efficient secretary, Mr. J. W. Cravens, for securing reduced railroad rates.

12. That we especially tender our thanks to Mr. Timothy Griffin for his courtesy in extending to us the use of Agricultural Room.

B. F. WISLER,
H. D. VORIES,
E. O. ELLIS,
W. S. ELLIS,
L. O. DALE,

} *Committee*

Officers elected for the coming year were: President, J. F. Snow, Adams county; Vice-Presidents, G. W. Dealand and J. L. Ohlwine; Treasurer, W. T. Morrison; Secretary, W. B. Flick; Executive Committee, B. F. Thiebaud, J. W. Ellis, E. G. Machan, W. B. Thomas, Samuel J. Huston.

READING CIRCLE NOTES.

The following counties have reported the Reading Circle membership since the last published list:

De Kalb.....	141	Adams.....	102
Hancock.....	175	Pulaski.....	52
Delaware.....	130	Johnson.....	114

The number of teachers required to fill the district schools of De Kalb county is 112, while the membership is 141, making 29 who are either teaching in the graded schools of the county or preparing to teach. Who can beat this showing?

Hancock county makes a handsome showing. The schools of the county require 120 teachers, yet the membership reaches 175, made up of advanced pupils and student school-patrons.

The list of books for the Young People's Reading Circle is as follows:

LIST OF BOOKS FOR 1890-91.

SECOND GRADE.

Names of Books.	Publishers.	Price.
Little Folks of Other Lands.....	Inter-State Pub. Co., Chicago....	\$0.40
Stories for Young Children.....	Ginn & Co., Chicago.....	.20
Grandfather's Stories.....	D. Appleton & Co., Chicago. ....	.31

THIRD GRADE.

Sea Side and Way Side (III).....	D. C. Heath & Co., Chicago.....	.45
Jackanapes.....	Frank F. Lovell, New York.....	.50
American History Stories, No. 1 or 2..	I. N. Harlan, Gen'l Agt., Ind'pls..	.33

FOURTH GRADE.

Stories of Heroic Deeds.....	D. Appleton & Co., Chicago.....	.33
Eggleston's History of the U. S.....	D. Appleton & Co., Chicago.....	.68
How Success is Won.....	Inter-State Pub. Co., Chicago.....	.65
Flyers and Creepers.....	D. Appleton & Co., Chicago.....	.44

FIFTH GRADE.

American Authors for Young Folks....	Inter-State Pub. Co., Chicago.....	.65
Heroes of the Seven Hills.....	Porter & Coates, Chicago.....	.40
Stories from the Dictionary.....	Inter-State Pub. Co., Chicago.....	.52

ADVANCED GRADE.

Shakespeare's Julius Cæsar.....	Ginn & Co., Chicago.....	.38
Webster's Speeches.....	Porter & Coates, Chicago.....	.40
American Poems.....	Houghton, Mifflin & Co., Boston..	.94

The Monthly Magazine, *Our Dumb Animals*, for all grades. American Maine Society, 10 Milk Street, Boston

The books for former years are designed to form a basis for a circular library, and are as follows:

SECOND GRADE.—Æsop's Fables, Cats and Dogs, Sea Side and Way Side, Nos. I. and II.

THIRD GRADE.—Sea Side and Way Side, Nos. I. and II.; The Seven Little Sisters Who Live in the Round Ball that Floats in the Air; Friends in Felt and Furs; Hans Anderson's Fairy Tales (first series); Gilman's Discoveries and Explorations of America.

FOURTH GRADE.—Stories of Heroic Deeds; Swiss Family Robinson; Grimms and Puritans; Ten Great Events in History; Birds and Bees; Robin Crusoe; Neighbors with Claws and Hoofs; Ten Little Boys on the Road from Long Ago to Now; Stories of Our Country; Peasant and Prince; Hans Anderson's Fairy Tales (second series); Animal Memoirs, Part I.; Gilman's Colonization of America; Gilman's The Making of the American Nation; Wings and Fins.

FIFTH GRADE.—Washington and His Country; Animal Life in the Sea and on the Land; Tales from Shakespeare; Franklin's Autobiography; Plutarch's Lives; Glimpses of the Animal World; Magna Charta Stories; Whittier's Leaflets; Longfellow Leaflets; Shakespeare's Merchant of Venice (Hudson).

ADVANCED GRADE.—Dunn's History of Indiana; Ruskin's Art and Selections; Scott's Lady of the Lake; Hawthorne's Twice Told Tales.

FROM ACROSS THE ATLANTIC.

FRANCE.—The French Academy of Sciences has received a petition with numerous signatures concerning a greater degree of simplicity of French spelling. Chiefly silent letters and mute sounds (such as *fis* instead of *files*, *fan* instead of *faon*, *peut être* instead of *peut-être*), are what the petitioners object to. Greek *ph* they ask to have replaced by the *f*, as is done already in *fantasia*. Among the signers of the petition are many members of the Academy, authors, professors, teachers, deputies, etc.

SWITZERLAND.—Abbé Conrad, who died recently in Basil, has bequeathed the sum of 12,000 marks to his birth-place Salmbach, in Alsace, for the purpose of establishing infant schools.

JAMAICA.—A priest, Abbé Jaeckel, born in Coblenz on the Rhine, died recently at Kingston, Jamaica. He bequeathed his estate, 75,000 marks, to a classical school at Coblenz; the interest of this sum to be used in paying pensions to the teachers.

BRAZIL.—Since Brazil has become a republic the state, as such, has given up the state religion, which used to be Roman Catholic. Naturally religion study in the schools was given up and a government decree so declared it. The decree abolished religion in both the lower and the secondary schools.

PRUSSIA.—The largest soldier in the Prussian army is a teacher who recently began his six weeks' military service. He measures 6 feet 6 inches in his socks.

ENGLAND.—Eighteen thousand London school children were given an outing in the country for two weeks last summer. Expenses \$57,000, of which the parents defrayed about one-third.

AUSTRIA.—The famous "German School Society" that has made such successful efforts in maintaining German schools in Slavic provinces, completes its tenth year of existence this spring. Its annual meeting will be held at Linz, on Whitsunday.

KOKOMO has let the contract for a new \$15,000 school building, made necessary by the rapid growth of the city, due to influence of natural gas.

OVER 2,600 prizes are offered for essays and drawings by James W. Queen & Co., of Philadelphia, who are agents for the Faber pencil. For particulars address as above.

PERSONAL.

W. S. Almond has been unanimously re-elected at Salem.

W. A. Bowman will remain at Shane's Crossing, O., at an increased salary.

J. C. Gregg has been employed for a 12th year as Supt. of the Brazil schools at an increased salary.

George M. Logan, of Leavenworth, has been chosen superintendent of the Mitchell schools for next year.

John A. Miller has been appointed superintendent of the Rockville schools, to take the place of L. H. Hadley, resigned.

C. L. Pulliam has resigned the principalship of the Mt. Vernon high-school, to take the superintendency at New Harmony.

Robt. F. Evans, a graduate of Hanover and of the State Normal, has been elected principal of West Main Street Seminary, at Madison.

R. W. Wood, formerly Supt. of the Jeffersonville schools, has been chosen Supt. of the Aurora schools. The Aurora people are fortunate.

H. P. Leavenworth has been re-elected as superintendent at Mt. Vernon at an increased salary, and Chas. L. Pulliam will remain as principal of the high-school.

L. H. Hadley, for many years the efficient superintendent of the Rockville schools, has resigned his place to enter upon the practice of law in the State of Washington.

Prof. Joseph Carhart, of De Pauw University, has yielded to the wish of the college authorities and has withdrawn from the race for State Superintendent. He is popular in his present position and the trustees are anxious to have him remain where he is.

E. F. Sutherland, principal of the Southern Ind. Normal College at Mitchell, has sold out his interest in the school to E. E. Urner and G. E. Williams, now have charge.

Miss Fannie Stretch, formerly an Indiana teacher, but for several years of Winfield, Kan., was married May 29, to Mr. Will J. Fisher. The Journal extends hearty congratulations.

E. E. Griffith, in closing his superintendency of the Frankfort schools, the recipient of many tokens of friendly regard. Among these was a fine gold headed cane presented by his teachers.

M. A. Mess, formerly Supt. of Franklin county, but for several years holding a government position in Washington City, graduated recently in the law department of the National University.

Gen. T. J. Morgan, Commissioner of Indian Affairs, by the appointment of President Harrison, is an old time Hoosier, is a graduate of Franklin College and is elected to make the annual address before the alumni association next year.

John M. Bloss, formerly State Superintendent of Indiana, now of Topeka, Kansas, recently made the Journal office a pleasant call. He had just been looking after his 400-acre farm in Delaware county. He is looking well and feeling well.

W. H. Rucker has been unanimously chosen for a fourth year's superintendency at Lawrenceburg. He utilized Decoration Day for patriotic purposes. Recitations, songs, a general parade, and the erection of two beautiful flags were features.

John Cooper, so well and so favorably known as an Ind. Supt., is still Superintendent at Leavenworth, Kansas. A general "write up" of the schools in a local paper speaks of the Supt. in most flattering terms, and says the schools rank with the best in the country.

Anna V. La Rose, Supt. of the Logansport schools, closed up her year's work in good shape, and all the reports that come to the Journal concerning her work are favorable. The Journal believes in giving women an equal chance with men and is always glad to announce the success of a woman in a position of trust and responsibility.

Martin A. Barnett, formerly Supt. of schools at Vevay, Attica, and Elkhart, fell dead in the Broadway Hotel in Madison, June 5. Mr. Barnett had been out of the school work for some years, but was seeking an opportunity to return to it. He was an estimable gentleman, and will be deeply mourned by a large circle of friends.

C. W. Crouse, formerly a leading teacher of Clay county, is now a U. S. Indian Agent, located at the Pima Agency, Sacaton, Arizona. He describes his location as follows: "On the Gila River, on the Desert, fifteen miles from the Railroad Station, on a scorching, reflecting sand, among 12,000 Indians, surrounded by the musical coyote."

State Supt. H. M. La Follette did not secure the nomination for congressman from his district, but made a gallant fight. His friends will be glad to hear that he recently passed a successful examination at Wooster University, Ohio, and received the degree Ph. D. So it is hereafter Dr. La Follette, not as an honorary (?) title, but as the result of a rigid examination.

Cyrus Smith, so well and so favorably known in Indiana, under the new arrangement of the book houses, has had his territory changed to Michigan, with head-quarters in Chicago. The Journal joins in the universal regret that Mr. Smith is to leave the state. No more universally respected book agent was ever in Indiana. Address him at 258 Wabash Ave., Chicago.

Arnold Tompkins, late Dean of the Normal School in connection with De Pauw University, has been elected to the chair of Reading, Rhetoric, and Literature in the State Normal School. This is a good card for the Normal School, and a fortunate move for the educational interests of the state. This item of news reached the Journal just as it was going to press, but it was too good to hold over.

J. T. Merrill, after being re-elected, tendered his resignation as Supt. of the La Fayette schools. Mr. Merrill began work in the La Fayette schools as principal of the high-school in Sept. of 1864—26 years ago, and he became Supt. of the schools in 1867—23 years ago, and has served continuously since. This is the longest term of service as Supt. of schools yet on record in Indiana. Mr. Merrill may well feel proud of the record he has made.

A. J. Dipboy, who was formerly Supt. of Miami county, but for some years past has been Supt. of the Anderson schools, has bought a half-interest in the *Anderson Democrat*, and will hereafter wield the quill instead of the birch. He has always made a success of whatever he has undertaken, and will certainly make a good editor. His partner is D. J. Crittenberger, formerly Supt. of Madison county. Two good school men ought to make a good paper.

W. D. Weaver has been elected Supt. of the Marion schools. Mr. Weaver is a preacher by profession and was pastor of the Baptist Church at Marion. He had been for a year or more president of the school board, and at the death of Supt. Waltz took a general oversight of the schools. He is said to be a man of considerable culture and information, but without practical experience in school work. It is to be hoped that he will learn his new duties rapidly and make a thorough success in school superintendency.

Dr. Ryland T. Brown, one of the oldest and best known educational men of the state, recently died at his home in Indianapolis. He has for fifty years been an educational force in the state. He practiced medicine in his early life, but was always a student and delighted in scientific studies. For many years he was professor of natural science in the N. W. C., now Butler University, and was for a time chief chemist in the department at Washington. He was the author of a physiology that was once extensively used in this and other states. He was once president of the State Teachers's Association, and often lectured before county institutes. He once held a professorship in the State Medical

College, but resigned because the faculty would not admit women. He was always a strong temperance advocate. His death is a loss to education, to religion, to temperance, to every good cause.

E. G. Machan, Supt. of La Grange county, several months ago was charged with having acted as agent in the introduction of certain books and school supplies and receiving pay for his work and influence, contrary to law. Mr. Machan denied the charge as utterly false, but admitted that he had used his influence with dealers in school supplies to the end that trustees might get the goods as cheap as possible, and had in one instance or two purchased for them, but no one profited personally by the transaction. After a bitter contest with the attorneys employed on both sides, Mr. Machan came out victorious, not a single charge having been proved against him. Having known Mr. Machan for many years the result is just what we expected from the beginning.

BOOK TABLE.

OUR NATIONAL SONGS, their authors, their history, and fac similes of original manuscripts, is one of the bright and timely features of the July number of the *New England Magazine*. This article, telling about our battle hymns, will be appreciated.

THE WORKING PRINCIPLES OF POLITICAL ECONOMY: *By S. M. Macvane*. New York: Effingham, Maynard & Co. J. D. Williams, Chicago, Western Agent.

This is a small book but gives a sufficient view of economic doctrine for the ordinary needs of the intelligent citizen. Political Economy is among the most practical of sciences, as it has to do with the problems of every-day life, and the author has attempted to work out the leading principles with a constant eye to practical affairs. It is a good book.

ARBOR DAY MANUAL, edited and compiled by Charles R. Skinner, A. M. Deputy Superintendent of Public Instruction of New York, is published by Weed, Parsons & Co., Albany, N. Y. It contains choice selections on Trees, Forests, Flowers, and kindred subjects; also programs for the observance of Arbor Day, with songs and music suitable for the same. To say that the book is a thing of beauty, is to express in a weak way but one of its charms. In its mechanical execution it is artistic and delightful, while its contents appeal alike to the imagination and heart. Mr Skinner says in the preface that the book has its inspiration in an acknowledged reverence for Nature, and so deeply has this reverence been imparted to these pages, that the reader is deeply impressed with the fact that *Nature* has been the great inspirer of beautiful thoughts in all ages, from the days of Solomon, who sang of the "Cedars of Lebanon" to Bryant who said, "The groves are God's first temples." This book cannot fail to delight all.

THE HOME, SCHOOL AND NATION, is an illustrated magazine published monthly at 93 Adams St., Chicago, by the Clarendon Publishing Co. Its

ject is to inspire patriotism in the young. It is the organ of the Young American Historical League. The editor in chief is the Rt. Rev. Samuel Fallows, D. D. Associate Editor, Martin J. Williston, A. M. The following departments are sustained by specialists:

1. The School, by Mary E. Burt, teacher of English Literature in Cook Co. Normal School, at Englewood, Ill.
2. The Kindergarten, by Mrs. Alice H. Putnam.
3. Elocution, by Prof. Walter C. Lyman.
4. Good Reading, by Prof. S. R. Winchell, A. M.
5. Music, by Prof. O. Blackman.
6. Physical Culture, by Edward H. Fallows, A. B.

To the common school teacher, Miss Burt's department alone is well worth the price of the paper, and no one can afford to teach without the information and inspiration given in the editorials and the other departments.

ESSAYS ON EDUCATIONAL REFORMERS: *By Robert H. Quick. A New Edition, with Topical Headings, a Chronological Table, and Other Aids to Systematic Study. Cloth. 336 pages. New York and Chicago: E. L. Kellogg & Co., 1890. \$1.00.*

The present edition of this very valuable work presents it in a neat and tasteful dress, with an arrangement of sub-headings, a table, and a chapter upon Froebel, that materially add to its value to teachers. Mr. Quick's book is one that every teacher would benefit by reading; as a lawyer makes himself familiar with the lives and works of Blackstone and Kent, so will a teacher profit from such a knowledge of Rousseau, of Pestalozzi, of Spencer, of Froebel. The present work introduces the reader in a manner at once attractive and scientific, to those masters and to many others, amongst them Ascham, Montague, Ratich, Milton, Comenius, Locke, Basedow, and Jacotot. A general view of each of these is presented, together with such extracts or epitomes from their best work as will give their most valuable words to the teacher of to-day.

THE NORMAL COURSE IN READING: *By Emma F. Todd and W. B. Powell. New York: Silver, Burdett & Co. O. S. Cook, Chicago, Western Agent.*

This series when complete will consist of a Primer and five Readers. The First, Second, and Third Readers are on our table, and have been examined from first to last with growing interest and delight. The plan of the books is out of the ordinary line and commands the attention of all thinking, progressive teachers. The underlying thought is to teach the child to *see*, to *think*, to *express* thought. To reach these ends the authors use *nature*—principally plants and animals. The first part of each book is devoted to plants, the second part to animals. The subject-matter and the discussion are adapted to the age of the pupils for whom they are intended. Objects with which the children are familiar or are made familiar are used as subjects of conversation and *reading*. The "suggestions to teachers" are worth the price of the books to any young teacher. They set forth the best thought on the teaching of this most important of all school subjects.

IN CELEBRATION of the 15th anniversary of the first commencement of Purdue University the students have prepared an artistic and beautiful book which is designated "A Souvenir: '75-'90." Its design is to show to the general public the humble beginning of the University in 1875; its gradual but healthy growth from '75 to '90, and its promising condition as it completes its first years. The entire work of this book, the designing, illustrating, printing, coloring, and binding was performed by the students. It was prepared under the auspices of one of the many college organizations, but represents all organizations and departments. Through its illustrations it gives the stranger a good idea of the extent and beauty of the college campus, as well as of the buildings occupied by the different departments. It also contains portraits of the president and faculty and some of the members of the different societies. The college student would *not* be a college student if he did not get his joke in so many places, and so *this* book closes with some ludicrous caricatures of college and college sports. All in all, it does great credit to the head that planned it as well as the hands that were instrumental in its execution.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

FROM the way T. S. Denison, of Chicago, publishes THE TEACHER'S AND STUDENT'S LIBRARY, we judge he must have a remarkably good thing. The book has been the most successful one ever offered to teachers. A new edition has just been published at the very low price of \$2.50.

THE NATIONAL EDUCATIONAL ASSOCIATION meeting will be held at St. Paul, Minn., beginning July 8th. A number of persons are going from this locality via the Pennsylvania Lines owing to the low rates, and the other fact that this road enters the Union Depot in Chicago and saves transfer.

EXCURSIONS TO THE NORTHWEST.—*Reduced Rates via the Pennsylvania Lines to St. Paul, Minn.*, for the National Educational Association meeting. Tickets at 75¢ fare for round trip will be sold July 1 to 7, good returning until July 15, inclusive, by special arrangement in St. Paul return limit can be extended to September 3. Take this line and save transfer in Chicago.

THE CINCINNATI, WABASH & MICHIGAN is the road that leads to the greatest number of watering places and summer resorts. It is the route to some of Indiana's most attractive lakes, and is the most direct line to the western shore of Lake Michigan where you get all the breezes. For particulars address E. H. Beckley, G. P. and Ticket Agent, at Elkhart, Ind.

ARE YOU LOCATED FOR SEPTEMBER?

If not, send for blank and circulars of the School and College Bureau. We have first-class vacancies on our books unprovided for, and are sending out 200 letters to employers of teachers. These will bring us hundreds of vacancies for July and August. Our vacancies are in all departments of instruction, direct from employers therefore reliable. Registration fee \$1.00.

7-11

Address,

C. J. ALBERT, Manager, Elmhurst, Ill.

THE BAY VIEW article in the May number of the School Journal has caused much inquiry about that famous Northern Michigan summer resort, assembly and summer university. If you haven't read it, look it up. It is entitled "Terraced Bay View." Dr. E. E. White and Rev. Dr. T. W. Gunsaulus were there last summer and pronounce it the most delightful place they have met in all their travels. Miss Frances E. Willard thinks the assembly is second to none, while Dr. J. A. Worden, at the head of Presbyterian Sunday School work, says of the more than thirty assemblies he has attended, the Bay View program last summer was "the most complete, perfect, and choice of them all." The *Assembly Herald*, published by Mr. J. M. Hall, of Bay View, Emmet Co., Mich., is full of information about the place, the summer university, expenses, etc. He will gladly send copies on request. Teachers who have not fully made their summer plans will find Bay View an attractive point. 7-11

NEW DINING CAR SERVICE.—*A Great Convenience for Travelers via the Pennsylv.* *vaia Lines*, beginning with Monday, June 16th. Pullman Vestibule Dining Cars will be run on St. Louis Express, Train No. 21, from Richmond to St. Louis, serving dinner and supper, and on Pennsylvania Special, Train No. 20, from St. Louis to Richmond, serving breakfast and dinner. Also on Western Express, Train No. 9, from Pittsburgh to Richmond, serving breakfast, dinner and supper, and on New York Express, Train No. 6, from Richmond to Pittsburgh, serving breakfast, dinner and supper. This arrangement, in connection with the service in effect on the Pennsylvania Railroad east of Pittsburgh, affords continuous Dining Car service between St. Louis and New York and other eastern cities, in both directions, on trains named above, which leave Indianapolis as follows: No. 21, 1 p. m.; No. 20, 3 p. m.; No. 9, 11 p. m.; No. 6, 5.15 a. m. 7-11

THE B G FOUR ROUTE TO ST. PAUL.

For the Annual Meeting of the National Educational Association at St. Paul, Minn., July 4 to 11, 1890, the Cleveland, Cincinnati, Chicago & St. Louis Railway will make special low round-trip excursion rates, giving such limits on tickets as will permit passengers to avail themselves of the low rates which will be offered for side trips from St. Paul to all points of interest in the North and Northwest.

To the recreation-seeking tourist no portion of the country offers so many and varied attractions at this time as the Lake Regions of Wisconsin and Minnesota, with their wild, rugged scenery, dense forests, multitude of lakes, mineral springs, and elegant hotels, etc.

For many years the Big Four Route has been known as the popular line to the Northwest, and the "Finest Traing in America" are now run daily between Cincinnati, Indianapolis, and Chicago, equipped with private compartment buffet sleeping cars, standard Wagner palace sleeping cars, rocking chair cars, and elegant parlor and cafe dining cars, lighted by gas and vestibuled from end to end, affording all the privacy, comforts and convenience of home-life, together with the luxurious surroundings of a first-class hotel. All trains of the Big Four Route make direct connection at Chicago with through trains for St. Paul.

Before making arrangements for a trip to the Northwest, call on the nearest agent of the Big Four Route, or address,

H. M. BRONSON,	J. E. ROOSES,
Asst. G. P. A., Indianapolis, Ind.	Gen'l Southern Agent, Cincinnati, O.
OTCAR G. MURRAY,	D. B. MARTIN,
Traffic Manager, Cincinnati, Ohio.	General Pass. Agent, Cincinnati, O.

7-11

MEETING OF NATIONAL EDUCATIONAL ASSOCIATION,

ST. PAUL, MINN., JULY 4 TO 11, 1890.

For the above occasion the C. C. C. & St. L. R'y (Big Four Route) will sell excursion to St. Louis and return at the special low rate of one fare for the round trip, with \$2.00 added. Tickets will be on sale July 1 to 7, inclusive, and can be made good for return passage until September 30th, inclusive, enabling passengers to avail themselves of the low rate side-trip excursions which will be arranged by the lines from St. Paul. The beautiful lake regions of Wisconsin and Minnesota present irresistible at-

tractions to the recreation-seeking tourist, and a few weeks spent at Spirit Lake, Manitowish, Waukesha, or any other popular resort adjacent to St. Paul will prove an ideal vacation.

The solid vestibuled trains of the Big Four Route between Cincinnati, Indianapolis and Chicago, with private compartment buffet sleeping cars on night trains and elegant cafe dining cars on day trains, provide the best and quickest service ever offered. St. Paul, and all persons contemplating a trip to the Northwest should call on or address the nearest agent of the Big Four Route before completing arrangements.

BIENNIAL CONCLAVE KNIGHTS OF PYTHIAS.

MILWAUKEE, WIS., JULY 8 TO 12, 1890.

For the above occasion the C. C. C. & St. L. R'y (Big Four Route) will sell excursion tickets to Milwaukee and return, July 6th and 7th, at the special low rate of one cent per mile to Chicago and return, added to \$2.55 for the round trip from Chicago to Milwaukee. Tickets good returning until July 13th. In addition, special round-trip tickets to Milwaukee and return will be sold July 5th, 6th, and 7th, at rate of one cent for the round trip, good to return until July 15th.

The solid vestibule trains of the Big Four Route between Cincinnati, Indianapolis and Chicago, with private compartment buffet sleeping cars on night trains and elegant parlor and cafe dining cars on day trains, provide the best and quickest service ever offered to the Northwest, and all persons contemplating a trip to Milwaukee should call on or address the nearest agent of the Big Four Route before completing arrangements.

TEACHERS:—Vacancies for Fall, paying from \$30 to \$200 per month. Address with stamp. W. E. CAVERS, Georgetown, Texas.

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EMPLOYMENT FOR TEACHERS.—*The U. S. Mutual Accident Association* of N. Y. offers good insurance at exceedingly low rates. A good active agent is wanted in every community. Such an agent can earn liberal wages. For full particulars address, D. F. FLEENER, Gen. Ag't, 31 Virginia Ave., Indianapolis, Ind.

Look here, Friend, Are you Sick?—Do you suffer from Dyspepsia, Indigestion, Sour Stomach, Liver Complaint, Nervousness, Lost Appetite, Biliousness, Exhaustion or Tired Feeling, Pains in Chest or Lungs, Dry Cough, Night sweats or any form of Consumption? If so, send to Prof. Hart, 88 Warren St., New York, who will send you free, by mail, a bottle of *Flaraplexion*, which is a sure cure. Send to-day.

CATARRH CURED.—A clergyman, after years of suffering from that loathsome disease Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dread disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren St., New York, will receive the recipe free.

To Teachers. \$75 00 to \$250.00 per month can be made soliciting memberships in the Standard Library Association. We will guarantee a good salary to teachers who desire profitable employment during the summer vacation and who furnish satisfactory references. For terms address, W. D. WILCOX & Co., Special Agents, 413 Dearborn St., Chicago, Ill.

A SUMMER SCHOOL OF CHEMISTRY IN THE UNIVERSITY OF MICHIGAN.—July 7 to August 15. Primarily for teachers. Address Mr. W. F. Edwards, Ann Arbor, Michigan. 5-2t

If you are contemplating a trip to any point in Missouri, Kansas, Texas, California, or any Western State, call on the nearest agent of the Big Four Route (C. C. C. & St. L. Ry.), and obtain full information as to rates, route, and all other matters of interest. The solid vestibule trains of the Big Four Route, making close connections in Union Depots, offer accommodations and facilities excelled by no other line. The dining-car service of the Big Four Route is unsurpassed. 5-7

THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page. 1-tf

CINCINNATI, WABASH AND MICHIGAN RAILWAY—*The Elkhart Line*.—Three Through Trains Daily (except Sunday), between Indianapolis and Benton Harbor. Direct connection at Benton Harbor for Grand Rapids, Muskegon, and all Michigan points, and for Chicago via the Detroit & Cleveland and Graham & Morton boat lines. About May 20th we will put on a line of new Combination Sleeping and Chair Cars on night trains between Indianapolis and Grand Rapids; also a line of Chair Cars on day trains. For time of trains, rates, etc., see any ticket agent, or J. B. HARTER, General Agent,

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Elkhart, Ind. 2-tf Indianapolis, Ind.

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IV. CALENDAR:—

First Term opens Sept. 9, 1890;
Second Term opens January 6, 1891;
Third Term opens April 7, 1891.

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PRESIDENT.

TEACHERS WANTED.

Our list of good candidates is rapidly decreasing. Over four hundred of our teachers have secured positions, either through us or otherwise, during the past two years. Two weeks more will see another decrease of four hundred, and a corresponding increase in the demand. Boards get anxious and urgent, as one by one the good applicants withdraw their applications. New openings, suddenly made vacant by elections to more important positions, are known at once to the Association; school boards write and telegraph us daily for teachers for these places. We have now on our books:

(Some in all States.)		(In every State.)	
Superintendences at \$2,500		Grammar Grade positions at \$600	College Presidencies at \$2,500
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High School Principalships at \$900		Primary Grade positions at \$600	Teachers of Sciences.
High School Principalships at \$700		Primary Grade Positions at \$500	Teachers of Mathematics.
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		College, Normal, and Academy	Elocution Teachers.
		Professorships at \$800	Teachers of Penmanship and Book-keeping.

During June, July, and August changes are sudden. The RUSH will soon be upon us. Available candidates become few. If you would accept a better place at a larger salary, write us, state your qualifications fully in your first letter, to save time. Circulars and manual sent free.

Address, **TEACHERS CO-OPERATIVE ASSOCIATION,**

[6 11]

OSWELL E. REESMAN, MANAGER.

70-72 DEARBORN STREET, CHICAGO.

INDIANA SCHOOL * JOURNAL.

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AUGUST, 1890.

No. 8.

MORAL SUASION VS. CORPORAL PUNISHMENT.

OLIVER H. CARSON.

IN the subject before us we have two methods of discipline. What is their relation to each other? What are their relations to the entire subject of discipline? These questions it is the design of this paper, partially, to answer.

Educators are constantly urging upon teachers the necessity of a thorough study of mental science, that they may have a closer knowledge of mind development. Likewise, in the consideration of the topic before us, it is well that we establish a foundation in elemental principles. It is always advisable to build upon the solid rock, not alone for the security of the superstructure, but because the building of solid matter on solid matter gives to the builder a confidence in his construction. He who observes the philosophy that underlies all things has the key to correct interpretation; for with him it is not a question of deciding an individual case, but of the determination of a principle.

The object to be gained by school education has been variously stated. One educational thinker puts it in this way: "That the design of the school is to make the individual free, to have him actualize his potentiality." Others hold that the school exists to make good citizenship; and yet others, that the end to be sought is to make the individual universal. These are but kaleidoscopic views of the same thought. One idea underlies them all. The most abstract representation of this idea is that first stated, viz: the actualization of the inborn power. The other views

expressed are rather concrete representations. Thus good citizenship and the universality of the individual will both be realized if the in-dwelling germs are developed until they produce their possible fruit. But for the purposes of this discussion we prefer to adopt the third idea respecting education, in which we have the thought that the object of the school is to make the individual a universal being.

W. T. Harris represents what we, ordinarily, term the common school branches, as the windows out of which the soul looks. Some one, recognizing the activity of the mind, both in determining the direction of thought and in original investigation, has changed the windows into doors out of which the soul passes. Now, it is by passing out of this tower of individuality through these doors, that the individual loses himself in the whole, merges his unity into the larger unity. Thus, passing out of the door of language, the germ of his own thought, by stimulation, addition and amalgamation, becomes a matured product in the thought of the whole race. Passing out of the door of geography, his idea of space, involving a knowledge of his immediate surroundings, develops into a larger idea involving a knowledge of the globe. Passing out of the door of history he ceases to be the center of action, and, observing that certain principles have been storm centers, about which whole nations of men have been eager in conflict, he becomes universal with the race in action. Passing out of the door of mathematics he acquires a knowledge of the relation of magnitudes and of the new relation thus arising between matter and mind, thus becoming universal with the race in its thought with reference to the relation existing between it and the physical universe.

Yet, not by simply passing out of these doors is universality gained. In the human mind there is a curious blending of intellectual yearning and intellectual indifference. If the will is not made to be a whip to understanding, the indifference is apt to overcome the yearning, and the investigator return into his tower of individuality. And yet further. There have been created by God and by man certain institutions that appeal to the individual not only on the side of his understanding, but also on the side of his will; not only showing their rationality, but also requiring his obedience.

It is into this kind of world the child has to go,—a world of intellect and of will. It is the duty of the school to make him universal not only in the realm of understanding, but also in the realm of moral action.

that he may be a proper member of society. Thus the object of introducing discipline into the school is a two-fold one:—to furnish a whip to drive the intellect the furthest away from self, and to make the individual obedient to the law of right that he may uphold it when he sees it actualized in institutions.

Not by passing out of some new door is this universality of moral action gained, but in right conduct in pursuing the paths that lead from the other doors. In every pathway are toilers after truth. The law of discipline says to each one—"stop not until the germ has reached its complete development"; and to each it gives the warning—"impede not your neighbor's progress." This is the decalogue of school discipline compressed into two great commandments.

It is the revolt against this discipline that makes this question of "Moral Suasion vs. Corporal Punishment" possible. It is the individual struggling to go back again into his tower, or to prevent his fellows from advancing on their way. It is the demon of the Gergesenes crying out against the Saviour that has come to drive it from the soul it torments.

We must now inquire what are the relations between moral suasion and corporal punishment, and the larger subject of discipline? And next we will seek to learn what relation moral suasion sustains to corporal punishment.

Moral suasion is not a punishment, yet it is a kind of discipline. The child is struggling to maintain its individuality and places that individualism against the rationalism of school discipline. Moral suasion is an effort to win him over to the acceptance of the institutional idea by an appeal to his reason. It is an appeal to the individual to cease to be an individual. It assumes that a higher thought has been developing in the mind, and that that higher thought may usurp the place of the selfish thought temporarily holding sway. Thus not only is some power of reason in the pupil presupposed, in order that he may discern that he, himself, is the gainer by being the loser of a small and selfish individualism, but it is also presupposed that he has the desire, back of the knowledge, to do that which he ascertains will further his interest.

There are many instances in which pupils of the lowest primary grades know the ground on which an action is decided to be good or bad, and in such cases they may be rationally appealed to. Yet here the knowl-

edge is instinctive (for the institutional idea always exists in germ) rather than consciously existent, and the power of seeing the abstract idea in the mirror of concrete form—that is, action—is not great. Hence, in general, commands are given to small children and they are expected to render obedience without an explanation of the rational ground of the command.

It is, then, only after some development of mind has been reached that the child can, in general, be rationally appealed to. It is only then that he can be governed by moral suasion. Whether a child who has been reached by moral suasion should be thus appealed to, when he has opposed himself to the best interests of the school, is a question superfluous to ask. The institutional idea is a rational idea, and to the child it presents itself in the form of school. Sooner or later he must give his rational acceptance. Those who acknowledge themselves as unwilling to be subject to human institutions are the anarchists of society. Compulsion does not make good citizenship. Institutions are the products of discipline and human reason, and they rely for their maintenance upon a rational acceptance and a rational support on the part of the individual. The teacher, then, does the pupil a great injustice and injury who fails to approach him on the side of his reason, when he has committed a transgression. Nor will the knowledge that the pupil is of bad character justify the teacher in not attempting to reach him from his rational side. It may be that his attitude is the result of a failure to appeal to his higher nature. And again: rationality comes only with development. That which was rejected yesterday is being seriously pondered on to-day, and will be accepted to-morrow. This development on the part of the pupil should not only be closely followed by the teacher, but should be stimulated by a constant appeal to the ingrowing power. On the one hand, nothing will more quickly or effectually dethrone a rationalism that has begun to assume sway than an appeal to its opposite—physical force. And on the other hand, nothing will do more to fortify it in its position than to acknowledge its authority in determining matters of conduct.

It is frequently true, also, that when the evil in one's nature is in ascendency, and the mind, dominated by its evil thoughts, awaits a physical combat, by an unexpected appeal to the good that is slumbering, the higher portion of the individual's nature will assume authority, putting in rout that which had previously been in control.

A story, much in point, was recently related of Moody in one of the Chicago papers. A night meeting under his auspices had just closed, and the evangelist, with overcoat on his arm, was making his way from the building. Outside the door was a band of roughs who had congregated to heap some indignity upon him. He comprehended the situation in a moment, and, with a tact we teachers ought to have, disarmed them by the question, "Will not one of you boys assist me with my overcoat?" Moody, walking away unharmed and undisturbed from that dazed gang, was not Moody the evangelist, but Moody the philosopher. Nothing is more depressing to a sick man than to talk discouragingly of his illness; nothing makes him more hopeful and buoyant than to speak of a speedy recovery. There is a philosophy in mind cure, and this is its expression: "An appeal to that which exists in germ hastens its development."

We should recognize that our pupils' minds are struggling toward the light of reason, that it is according to the law of their natures that they grope from the dark; and that we can no more rapidly assist them toward the light than by assuming that they already walk in the light.

But it is the experience of every teacher that moral suasion, alone, will not solve the question of conduct. There are too many dull brains and bad hearts to make that possible. The law, sometimes, has to be compulsion. Solomon's chastening rod has been about the master's desk since boys first went to school. It is said that, in ancient Rome, the earliest morning music was made by the rythmical descent of the school-master's lash and the respondent cries of the belabored boy. From that day almost to this, the rod has been the corrective of the transgressor, the terror of the timid. Almost to the present day, for of recent years the educational mind has declared against the old practice of flogging for every offense. Corporal punishment is being used less and less in our schools. More and more are appeals being made to the pupils' sense of right.

Is it possible that the rod be banished from the school-room, with the terror it incites? I think we will have to answer in the negative. In the republic of the nation we have jails and work houses for the enemies of society. In the republic of the school we must have rods and straps for the enemies of discipline. Sometimes it is best to reason; sometimes it is best to strike, and then to reason; sometimes best to strike, and let the pupil do his own reasoning.

As said before, the institutional idea, in some stage of development exists in every mind, for it is intuitional. Some persons are so constituted that they will not acknowledge themselves subject to any institution till, through sheer force, their obedience is compelled. It is their barbarous individualism struggling to maintain itself. Hence it is individualism that must be struck at. Individualism defiantly resisting institutionalism is force resisting reason. Force must be the corrective. Such is the philosophy of corporal punishment. Individualism, now being overcome by the very agency to which it appealed, acknowledges itself subject to the higher power. The instinctive idea thus assumes sway. This argument is true only when modified by the element of age. At every stage, in their school life, the school must speak in tones of command to a certain class of pupils. During the earlier stages individualism is overcome through bodily pain. During the later stages bodily pain would only make individualism more bitter. A kind of sacredness, like that instilled by ancient knighthood, attaches to the body, with advancing years. During this period, individualism is met by exclusion. Till the school strives to make pupils integral parts of itself, strives to unite them into one whole, by the instrumentalities both of reason and of punishment, and failing in this it casts the individuals forth from itself, leaving them to struggle against other institutions, until, finally, they yield to the law of force or reason.

The relations of moral suasion and corporal punishment to the subject of discipline have, now, to some extent, been defined, and, in their definition, the relations moral suasion and corporal punishment sustain each other have been impliedly set forth, so that but few words need be added further.

It is evident that no formula can be deduced by which methods of dealing with individual cases of infraction of discipline can be determined. The personal equation enters largely into the question—the personal equation of the teacher and of the pupil. Each case must be considered and determined individually. The teacher, looking beneath the close of a fear that prompts a repentance soon to be forgotten, or of a seeming indifference that covers a real sensibility, must look into the character thus exposed to view, of the offending pupil. But he must do more than that. Not sufficient is it to gaze upon the mind of the pupil in its normal action, but his diagnosis of the case must furnish a basis for the applica-

tion of the best remedies to cure the disease. With a knowledge of the end to be gained, and a knowledge of present conditions, he has to determine the means to secure the end. Thus must the teacher be a ready reader of human nature. Howsoever well he may be versed in the theories of discipline, when the wrong-doer stands before him, new problems arise for instant solution,—problems of analysis and of adaptation of means to ends; problems that can be solved only by an intuition quick by nature, quickened by experience.

But the teacher owes it to the pupil and to society to do more than repress evil, he should stimulate the good. Not the negativism of repression, but the positivism of stimulation; not the pulling up of the tares, but the caring for the tender wheat, is the need of the hour. The call from the world of action becomes every day louder for men of character; men unmoved by lust for power, untainted by corruption in high places; men who seek the truth for the truth's sake, who, clad in the armor of right, repel the powers of darkness. And where shall we look for the building of this character that is to withstand the enervation and corruption of a luxurious civilization? To the church? Partly. To the home? Largely. But neither the church nor the home can accomplish the result. In the school room, where the intellectual life buds and blossoms, where the pleasure produced by the mental unfolding clothes the one who has directed the expansion with a kind of reverence, there must we look for an influence in character-building, greater than that wielded by the church, and, in many cases, one that must counteract the teaching and example of the home.

The state, in its need and extremity, has a right to look to its creature, the school, for the sinews of moral strength, as well as intellectual power. And certainly it is due the individual that he be made an engine of good to do battle against the fortress of wrong, rather than an engine of evil to batter down the right.

Such is the responsibility of the teacher of to-day. May he be large enough to discharge his duty.

LANSING, MICH.

A GOOD education is that which gives to the body and to the soul all the beauty and all the perfection of which they are capable.—*Plato*.

ENGLISH IN THE SCHOOLS.

HARRIET NOBLE, PROF. ENG. LIT., BUTLER UNIVERSITY.

[First Paper.]

THE Harvard entrance examination in English demands a fairly written essay on one of several specified subjects. How exacting this compared with those in other departments, I do not know; though the essay must show discernment and thought as well as mechanical correctness. In other words, she asks that before entering her walls a student shall have in a reasonable degree learned to read and think and have acquired the art of expression.

This is the proper condition of a youth entering college work in this department; and, in Indiana, such is required of him in the line of mathematics and language. In these, with certain inequalities in preparation due to differences of aptitudes or instruction, candidates approximate to a generally recognized standard of excellence. But in English they do not. Here there is no general standard either of what English is or of excellence in it. And this is the subject of my song.

Students come to us bad readers. They can not be depended upon to interpret simple thought correctly. In the *Prothalamion*, one reads

"Calme was the day, and through the trembling ayre
Sweet-breathing zephyrns did softly play [without pause.]
A gentle spirit," etc.

And another:—

"And with fine fingers cropt full faetiously
The tender stalks on hye [period ignored.]
Of every sort which in that meadow grew."

And not even with notes to aid will many discover the connection between the Ladie's Somerset and the swans that "were bred of Somerset heat, they say."

I could quote examples without limit to show that they have yet learned to look at a passage and see distinctly what is said, and re-tell it. Like Prof. Thring's pupil, they know not whether a dolphin has two or four. They have not learned to use dictionaries and reference books. When it comes to composition their punctuation and grammar are faulty. They do not know the limitations of a sentence or paragraph; their ideas come in childish turns, crude and disconnected. They do not feel

bears upon the theme and what does not. Consequently the professor's energies must be expended in supplementing preparatory deficiencies when they should be devoted to better ends. To be sure, these faults are not found in every student. Some few have unusual natural parts and home training, and are a great comfort to the instructor; some others have had excellent training in schools; but to a large majority of them the above does apply.

I would not seem to demand phenomenal attainments in Freshmen, only the equivalent of what they are supposed to have in other branches. I would require them to have been carefully trained in a good many valuable works, such as are within their comprehension. This would have many benefits,—in more general knowledge, in power of interpretation, and in taste. There are many things that every one is supposed to know that are not only valuable in themselves but are the subject of constant reference in literature. Such are the myths and folk-lore; adventures, like John Gilpin's and Robinson Crusoe's; ideals, like King Arthur, Robin Hood, and Robert Bruce; and certain religious conceptions, like in Pilgrim's Progress. These need to be acquired in youth, because they need a child's imagination to embody them; or the child's character wants heroic models on which to form; or these things should be acquired and out of the way before more difficult knowledge is presented him; or (sufficient in itself) these things of beauty are a joy forever.

This knowledge is good, but it is not the chief benefit of English study. Interpretation is invaluable. Through it alone a man assimilates the thoughts of others; it trains the mind to step the paces of other men's minds, and in that way breaks down intellectual conceit and bigotry. A man with the habit of skillful interpretation is possessed of a good education though he has never been within a college hall. And taste is one of the many flowerings out of that most intangible thing called culture. I do not mean the taste that passes judgment (children should be slow at that), but the taste that heartily enjoys the best and finds pleasure in it only. Many people never get the faulty taste of childhood removed. How can one convince them that E. P. Roe is not an artist? They have not felt that *belles lettres* is an art, and an art to be appreciated only through familiarity. How, as one gazes in a gallery of paintings, the poor grow cruder to one's sight and the fine more beautiful, until, after much gazing, without knowing how or when, he has become a lover and a critic. This

love can be given to children; and long before they know the reason why they should be enjoying true literary art.

Yet there is a great want if the young person has not learned to write. First should come honest thought; then its expression: and nothing forms the thought better than the effort to put it down on paper. Writing for some few to read and write comes by nature, but with the most it is an essential art of slow acquisition. Only by long and careful practice do we get even the mechanical features, and Miss Catharine Merrill, after forty years of teaching, says that not by rules at all, but only by constant perusal of fine writing can we acquire a good style of our own. Benjamin Franklin as a boy recognized this, when on reading the *Spectator* he tried to re-express the ideas there for the training. And Stevenson tells how only by trying the methods of many men did he attain to his style—the pattern of exquisite felicity.

But how is a child brought up without books to have practice in expression? Where is it to get its models? and where its ideas? Is so much of the composition work of the schools mere bricks without straw? I did not know which to commiserate most,—the Freshman in whose essays I marked “padding” until she explained that she had got into the habit of writing “just to fill up” when given bodiless subjects; or the young man who got a grade of 40 for crude composition, and explained that it was the first essay he had ever written.

The occasion of my special interest in this matter of English in the schools grows out of a long list of a certain kind of students. They have good minds and studious habits, and stand well or even high in the other studies; they know the rules of grammar and rhetoric, and always do my tasks with pains. But they belong to plain unreading families, and know few books; and they fail me constantly at these points of general information,—ready understanding, taste, and composition. In these cases, during their preparatory study of literature imposed on grammar and rhetoric, we have done each day's lesson manfully; but we could not in two short years make up the results that should have been doing through eight. I would not seem to disparage my students either. I happen to know that these complaints apply to every Freshman class in the state. Surely it is not too much to ask that on entering college the composition should be in the main correct, and the thought come freely enough to have value and the beginning of a style of its own.

This should have been acquired by a youth on going from the school room into business. The papers once told of a young man who moved to another town, because, before proposing to his sweetheart he wished to see what kind of letters she would write. How many high-school graduates throughout the state could stand that test?

There are two other arguments in favor of literature in the schools. One, the moral influence. One needs but mention the great value in a family of books as the builders of high ideals and the yielders of an entertainment that rivals the seductions of the streets. Yet most homes lack these influences in their best form; and so far as possible the school should supply them. One could stop right here and deliver a lecture on the pernicious effects of poor literature. The principal of the Irvington schools ascribes to it three-fourths of the demoralization among his pupils. Supt. L. H. Jones writes: "Indeed, it may be questioned whether there is a large advantage in teaching a child to read if in so doing you do not give him a taste or a standard of judgment that will save him from the vile trash that is constantly thrust under his notice. Indeed, reading may become to him the very means of unlocking the vast storehouse of filth and crime which might otherwise be concealed under its yellow covers." A recent writer in the *Forum* showed from penal statistics a great proportionate increase in crime in those very communities where our school system is the strongest. No sane person would infer therefrom that the schools *teach* evil, or even lack all moral influence. But there may be read into the coincidence this, that education develops skill or aptness whether for good or evil, for in these more educated communities may be found more also of active good, and that still more of moralizing influences is needed in the schools.

The other argument is pleasure. The most vivid recollection of my eleventh year is of Friday afternoons. Then the white browed teacher read to us absorbing tales of heroes and gods, adventure and enchantment. Long years after I was to find them again in the Wonder-book; while from that day to this the realest things I have found were in books. Like the figures on the Grecian Urn they are ever fair and ever living.

Why is there a lack of this greatly-to-be-desired English training in the schools? Some pupils are obtuse and remind us of adages about tin whistles and horses led to water. To a class of temporary dullards a teacher one day said, "Talk about things not being interesting to you!

There are states of mind in which, if the angel Gabriel came into room, you would not listen!" Yet, I believe that if for dullards there any awakening, it is through literature,—not through spelling or grammar or arithmetic or geography, but history and literature.

Most teachers are not ready for this work. They could grow into as they teach it. They would not be ready in arithmetic, were it required. For those that are proficient I have the heartiest congratulations.

But the chief fault lies in the courses in the schools; and they are expression of an old and prevailing opinion of the relative value of different studies. From this opinion and these courses the more informed are already turning, while the more conservative would doubtless be willing to change too were the way but shown them. Of methods and plans I'll speak in my next.

THE SOCIAL INFLUENCE OF THE TEACHER.

EDWIN S. MONROE.

TIMOTHY S. ARTHUR has a story in the Fifth Reader of a popular variety,* in which he portrays the influence of one whose life is so pure and so good that it did not fail to impress everything around her. Not only the gruff man, the harsh woman, or the stubborn boy yielded to her gentle influence, but that shaggy dog and crotchety pony obeyed her as they had no thought further than her gratification. The man's explanation—"She's good, everything and everybody loves her"—is evidently the true one. The secret of her power which seemed to impart its moral influence to everything that she touched, doubtless lay in the fact that sincerity and honesty and gentleness and *goodness* were the dominating traits of her character. The story is given as a lesson for our pupils but what a lesson we, their teachers, may learn from it. The influence of the good is irresistible. There lies deeply buried in every human heart, no matter how hardened it may be, a reverence for the true, the beautiful, and the good. How ready do the waxing minds of the children receive the stamp of the characters of those with whom they are associated. Goodness will leave its impress on everything that it touches, and years after, it will be quite as distinct and satisfactory as a geologist could

* "The Gentle Hand"—McGuffey's Fifth Reader.

wish for in tracing the fairy pencilings of a rock-imbedded fern that grew in ages past.

Long ago, a boy of eighteen, with no special training and with no extended education, went into a country neighborhood in Southern Indiana to teach school. What he did, what he said, what methods or text-books he used, what books or journals he read, I do not know. But if you will go there to-day, you will find in that community, among all classes and kinds and conditions of people, the most satisfactory evidence that that boy-teacher was a *man*—honest, sincere, energetic, inspiring. Show me a man whose every heart throb beats in unison with pure thoughts, and kind deeds, and I'll show you a man whom oblivion can never claim. His face may be forgotten, his name no longer remembered, but the work he does will seal itself on the characters of all with whom he comes in contact. Only such as these are the true kings of earth. Only theirs the true title to nobility.

"Howe'er it be, it seems to me,
'Tis only noble to be good."

Call it social influence, or call it something else, if you please, this inherent, unexplainable power must, in some degree, be ours, or ours should never be the sacred trust of instructing the youth. Bring a child in contact with a man possessing this power and the child will become mind strong and good. Mark Hopkins was such a man, and Garfield said a log with Mark Hopkins on one end and himself on the other would be a better school than the costliest university of the land. It is from the teacher, therefore, and not the building, not the apparatus, that the child derives its education.

Only the moral can teach morality; only the good can impart goodness. If virtue and honesty and integrity are to be propagated, they must be propagated by people who possess them. If these children are to grow up into righteous manhood and womanhood they must have a chance to see how righteousness looks when it is lived. We have a great educational system, ample enough to reach every child in the state, but unless the school-houses are filled with teachers, sober-minded and good, the great end for which it was established is defeated. "Knowledge is power"—whether for good or evil. Put a man or woman in every school-room in the state whose social influence or whose total impression, if you

choose to call it, upon the community is civilizing power, and we shall get from our educational system all that it can give or that we can reasonably desire.

FARMERSVILLE, IND.

BEAUTIFUL BEHAVIOR.

In a sunny school-room twenty bright-faced, wide-awake boys and girls are gathered. It is the first week of a new year's work, and the teacher wishes to bring before them some helpful thought which shall be their motto for the year.

What do you mean by the word artist? Name the fine arts. Give some example of a great poet, sculptor, painter, musician. These questions, to which ready answers are given, lead up to the subject she has in mind, and awaken interest.

How long will the works of Michael Angelo, Raphael, Beethoven, Homer last? Yes, that is the right answer; they will last as long as the world endures. And what a grand thing it must be to do something which will bring pleasure to many for centuries, to do work that will speak for us long after we have passed away from earth. Such work would be a better memorial than the finest monument could be. Can we all be artists? There is only one Shakespeare. Only here and there appear the great names. We have in our school some who already know a little about drawing or music, but it is not very probable that even one of our number will become great in the world of art. But now hear what the poet Emerson has to say about fine art.

"A beautiful behavior is the finest of the fine arts."

Here is a department of fine art in which we may all work, and if we really try in this direction we shall produce something that will last—how long? As long as the world lasts, and as long as eternity, for there can not be truly beautiful behavior as a permanent thing without a beautiful character back of it, and character will last forever.

But a beautiful behavior means a great deal. I presume you can think of some things that are often done in the school room which are quite the opposite of a beautiful behavior. These things we must earnestly try to put aside, and we must put right things in their place. Beautiful behavior brings real pleasure to others as truly as a fine poem or picture does. Should we not like to have it said of us, "How be-

tifully those boys and girls behave; how well they conduct themselves on the street, at home, and wherever they are"? It will not do to keep our good behavior for only occasional use. It will improve with everyday wear. Let us all try to become great artists in the finest of the fine arts.

LIZZIE H. HAZELTINE.

OXFORD, CONN.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

METHOD IN THE SCIENCE OF GRAMMAR.

THE preceding article, in the July number of the Journal, states that the first step in the construction of the science of Grammar is that of ascertaining the fundamental, or organizing, principle in the science. The method of the science is the process of applying this principle to all the facts of the subject-matter, in such a way as to bring them into unity. The subject matter of Grammar being the sentence, the organizing principle is the essential, universal nature of the sentence; which was found to be an arbitrary triple form for the purpose of expressing thought. The attribute "arbitrary" does not apply to the triple form, but to the words; for the triple form is conditioned by the thought. The fundamental principle was stated concisely in a definition: A sentence is a group of words expressing a thought: or, more explicitly, A sentence is a group of words expressing the relation which the mind establishes between two ideas; i. e., expressing the three elements in an act of thought. This principle is to be kept present at every point in the construction of the science of Grammar.

The preceding article stated, also, the fundamental, universal form of mental activity involved in thinking the manifold facts of Grammar into the unity of the foregoing principle. From the fact that a sentence is *thought* and *form* in vital unity, the primary activity is the two-fold act of analysis and synthesis. The mind can not give conscious attention to the sentence without distinguishing between its thought and its form as parts of one organic unit. The analysis is for the sake of a higher synthesis. At first the mind is conscious only of a unity of words in space or in time; but when, through the analysis, the words are seen to con-

form to the thought, the higher organic unity of the words in the sentence is perceived. The thought is first separated from the form, and then the form is used as means in perceiving the organic unit of words. The purpose of grammar study, as to knowledge, is to show how sentences, in their richness of variety, conform to thought. This makes language form the primary object of attention, and thought secondary—a means. As before observed, this reverses the customary mental activity in dealing with language; since in reading and in composing the attention rests primarily in the thought; the language being means. Thus is separated the study of grammar from the other language studies.

This two fold activity of analysis and synthesis was separated into five elements: (1) Observing the concrete form of the sentence; (2) Isolating the thought expressed; (3) Analyzing the thought; (4) Associating the analyzed thought, part by part, to the sentence form; (5) Judging of the relations among the parts of the sentence in the light of the thought as applied to it.

It should be noted in connection with the foregoing that every analysis involves necessarily an act of introspection. We have already observed that words refer back to the mind for their significance and for their relations; and not to external things, directly. For instance: I propose that I wish to ascertain the force of the modifier, "certainly" in the sentence—The apple is certainly sweet. I change the sentence to, The large apple is sweet; and, The apple is very sweet. By introspection, I perceive that the word "large" in the second sentence, changes that element in my mental state answering to the word apple. The picture of the apple changes; the picture changes; the apples themselves do not change. By the same process, I feel that the word "very", in the third sentence, changes the represented sensation expressed by the word sweet—intensifies it. By contrasting the mental state produced by the first sentence with that produced by each of the others, I find that the word "certainly" does not change the picture of the apple, nor the feeling expressed by the word "sweet." If now I contrast the mental state produced by the first sentence with that produced by the sentence, The apple is sweet, I am conscious of difference in the quality of my judging act—a difference of certainty as to the identity of the idea "apple" and the idea "sweet." Again: suppose I desire to distinguish between the significance of the singular and the plural form of nouns, having the sentences, Man is a

tal; and Men are mortal. I may express substantially the same thought in either of the two ways,—all men are meant in both cases. The definitions, that the singular number denotes one, and the plural number more than one, does not hold. The singular number never denotes one, i. e., an individual: it denotes one class. But this one class includes all the individuals expressed by the plural number of the same word. The difference is a mental one, and can be ascertained only by introspection. It is difference in the emphasis given by the attention. The singular number emphasizes the content of the idea, and the plural number, the extent. The external facts of man and mortality remain the same; the attention shifts from one phase of the concept *man* to the other. The difference being in the attention, the difference can be ascertained only by observing internally the act of attention. It will be of immense value to the reader to make many illustrations of the fact that every grammatical distinction requires an act of introspection.

The foregoing is the last universal element of method to be named in the study of grammar. We had already noted the complexity of the act of grammatical analysis. This last element not only makes the act still more complex, but peculiarly difficult. This alone would make it impossible for the pupil in the lower grades to study scientific grammar. The student must have the power of reflective knowledge as a condition of grammatical study. Grammar and psychology fall to the same phase of mental development, and at the same time in the course of study. There is a primary and an intermediate phase of grammar, which do not rise to the plane of science. How these two phases differ from each other and from the scientific phase, in their mental activities, and how they pave the way for the scientific phase, is a problem needing solution.

SUGGESTIONS ABOUT THE APPLICATION OF THE CATEGORIES IN HISTORY.

THE teacher, and the student that consciously applies them, must understand that the categories are not a sort of frame-work into which the material of history is to be forced. They do not constitute a machine for the purpose of grinding out a mechanical product of some kind. There is always danger when the teacher gets hold of some new way. It comes from lack of knowledge and skill, and can be remedied by study and

practice. This is particularly true of the categories; for they seem dead and formal, at first view, that any one appears able to make their application by simply putting them in motion. In truth, however, categories are anything but dead; they constitute the living parts of the subjects. They are the fundamental relations without which the mind could never come into the possession of a subject. They are *in* the subject and not *out* of it. They are not *applied to* history but are *discovered in* it. It is worth something to the teacher to know what these categories are and that the problem of history, on the side of knowledge, is bounded by these relations.

Because each fact of history may be viewed under all the categories and relations, it does not follow that it should be so viewed. The historical significance of a given event must determine under how many and what relations it is to be studied. Some facts are of such magnitude that they call for the discovery in them not only of all possible relations, but of all possible phases of each relation. Such facts are the Body of Liberties, the Stamp Act Congress, the Committees of Correspondence, the Continental Federation, the Constitution, Hamilton's measures, the purchase of Louisiana, and so on. Other facts are of so little importance, that they require study under a few relations to catch simply the flow of events and fill out the picture. Illustrations of these are found in the voyages of discovery, the Indian wars, storming of Stony Point, and the treason of Arnold, and many others. When the teacher first begins to use the categories consciously, the tendency is to use them indiscriminately, giving time and energy to unimportant facts. If the teacher does this it should be taken as evidence that the nature and use of the categories are not mastered.

The categories may be made the basis upon which the teacher assigns work to a class, and also the means of testing the pupil's work in relation. The manner of assigning a lesson in history determines not only the amount to be learned, but often the manner of learning it. If the teacher directs the class to take the next ten paragraphs, usually the class does as directed and proceeds to take the *paragraphs*. Paragraphs are made up of sentences. To take the paragraphs is to take the sentences, and about the only way to take the sentences is to commit them to memory. The whole energy of the pupil is expended on the form of the lesson instead of its content. All effort is directed toward fastening

memory the order of paragraphs, sentences, and words. The very page, with all its features, is fixed so vividly that it seems to the pupil like an open book. The most natural thing, and, under the circumstances about the only thing, for the pupil to do is to recite the lesson as he learned it. This tendency will be strengthened when the teacher's questions and directions in the recitation are in harmony with those supposed to be given above for the purpose of directing the preparation of the lesson. Here are some questions and directions that put a premium on memorizing the text. "Recite the first paragraph." "What does the author say about this battle?" "Give what the book says in the fourth paragraph." "Give the description of the voyage of the Mayflower." Worse, if possible, are questions framed in the language of the text, or so framed as to suggest answers in the words of the author. All such questions and directions are bad, because they set the problem of history in the language of some book, while the problem of history is one of thought. Language is only one of the means in which the thought of history is expressed, and has no other value to the student of history. As far as possible the pupil must be unconscious of the language of the text book. It should be so simple and transparent that his mind drops through to the content without wasting strength on the words and sentences. Now a judicious use of the categories will not only prevent the formation of the habit of committing the text, but will break up the habit already formed by forcing the pupil to explore the thought of history.

The subject of the lesson is the expedition against Lexington and Concord. How may the teacher assign the lesson from an ordinary text so as to force the pupil into the thought of the lesson, and thus prevent memorizing its language? Let us see what the categories will do.

1. Find out what events occurred just before the expedition against Lexington and Concord. What events immediately followed? How long did this expedition last? Were there any other events occurring about the same time in other parts of the country? These questions involve the relation of time, but are so framed that the pupil can hardly answer them by committing the text.

2. Read over the lesson and from its description draw a map showing the position of the leading places and the route of the British forces. Describe the character of the country along the route and show what it had to do with the result of the expedition. There is no room here for

verbal memory. To meet these points the pupil must plow his way through the text to its meaning.

3. How many and what movements did the British army make? to the Americans? The questions under 1 and 2 will lead the pupil to view the expedition as a time whole and a space whole. This last question requires that the event be broken into parts on basis of the different movements. There is also this advantage: The pupil is forced to look at the expedition more in detail—to picture it more definitely and concretely than before.

4. What was the object of the British in making this expedition? Did the purpose of the British change? What did the Americans aim at in the beginning? Did their purpose change? Describe the acts of each party in trying to accomplish its end. Which succeeded? Did the British army and government have no other aim. Did the Americans aim at anything beyond the defeat of this expedition? Prove your answer from the acts of the Americans. Here we have an application of purpose and means, and here it is that the pupil comes into contact with the thoughts and feelings of the period. He is now studying life. In order that this be accomplished, the narrative of the acts of each army must show them as means in the process of working out their aim. Each act must be explained in the light of the purpose. Holding the pupil to this requirement leads him to tie together all the acts of each party to one idea—the idea of purpose. It will not do, if the pupil can only say that Paul Revere rode out from Boston to alarm the surrounding country. *What* Paul Revere did and *how* this alarmed the people—the plan by which he reached the country, the ride from farm house to farm house, the spread of the news from each of these as centers, the firing of alarm guns, the ringing of bells, and the gathering of minute men—all these and more, should be given, so it may be clear *that* the ride was a means and *how* it was a means. After the immediate end of the expedition and the struggle to realize it is seen, it is necessary to subordinate the immediate end to some higher and more remote aim. Viewing this expedition as a means to remoter ends enables the pupil to locate it as a part of a greater movement, the revolution itself. Does any one believe that the pupil, under the spur of such questions, would ever dream of memorizing the language of the author? Even if the pupil should, through force of habit, commit the text, would he then have his lesson? Would he not be as far from it as when he began?

5. What caused the British to make this expedition? What had the Americans been doing that led the British to plan this campaign? What thoughts and feelings moved the Americans to resist this expedition? What caused the Americans to think and feel as they did? These questions force the pupil to get the connection between this expedition and the events that caused it. They not only put the pupil into contact with the deeds of the people, but bring him into living contact with the people's life of thought and emotion. Here he will catch an intimation that the true causes of events are to be sought in the thoughts and feelings of men.

6. What were the immediate results of the expedition to the English? To the Americans? How do you account for the smaller number of Americans inflicting the greater loss on the British? How did the English and Americans feel after the fight? Prove your answer to this question. What change did this expedition make in the feelings and purposes of the Americans toward England? What events that followed this expedition were immediately influenced by it?

7. Write on your slates statements showing how this event differs from the events we called causes of the revolution. Write another set of statements showing that this event was like those as to causes and effects.

It may be objected that the above questions are too difficult. They are for weak or immature children. It holds, also, that the above questions and directions are not difficult enough—certainly not deep enough—for advanced students. The aim here is to show how the categories may be helpful in giving directions in the study of history. It must be evident that such an exploration of an event, as is indicated above, will not only reveal to the student something valuable and interesting, but in the process of working it out, will make him feel that he is constantly becoming more and more self-directive, will inspire him with the consciousness that he is solving problems and making real conquests in the realm of knowledge.

W. H. MACE.

IT is indeed the fact that human nature has been so adjusted that any system, however defective, will have its apparent success. Nay, the worse the system, the more brilliant may be its outcome in a few stars. But stars, remember, imply night.—*Thring*.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

L A N G U A G E .

THE meaning conveyed by the term Language is not so definite in the minds of teachers as is that expressed by the term Grammar, Geography, History, etc. The word Language in the thought of most teachers stands for a series of lessons by means of which the child is to be made familiar with a large number of facts concerning the nature of English language externally viewed. These lessons are devoted to the work of making the child familiar with the fact that there are various kinds of sentences—such as the statement, the exclamation, the question, etc.; that every sentence begins with a capital and has a given punctuation mark at its close; that there are words expressing objects, others expressing actions, etc.; that letters should be written in a given way; that the address should be in a given form, etc. It is generally understood that these lessons are to be oral, and that the teacher is to be guided by an Elementary Language book of some kind. Lessons are given upon objects and pictures, and sentences are constructed from groups of words.

The objection to be made to this view of Language work is that it emphasizes an incidental phase, and results in formal work.

Language work, while more simple than Grammar, is nevertheless to be of such a nature that it prepares the pupil both on the side of knowledge and on the side of power, to study the sentence from an *introspective* standpoint, as is necessary in Grammar. Hence the emphasis should be upon the *thought* in Language work, and the phase of Language above referred to should be made to appear incidentally.

THE AIM.

The design of Language work may be stated as two-fold—first, to give the pupil the power to think. This, however, is a general aim belonging to all subjects; second, to give him skill in the use of the forms which the English language provides, in order that he may correctly express his own ideas and thoughts, and accurately interpret the thoughts of others. This is also general, in that it belongs to all stages of Language work.

In order to make it specific, it requires a certain limitation. This limitation is that *the child shall construct language and interpret language and*

the impression that he is dealing with thought. The expression of this thought is to the pupil incidental, in that he is so taught as to avoid the idea that he is constructing expressions in order to learn to construct them well, and so as to avoid the idea that he is interpreting language in order to understand its structure.

THE DIVISIONS.

Language work consists both of construction and interpretation. By its nature, as based upon the thought which it expresses, it divides itself into two stages—first, that in which the mind deals with the sentence in its unity, involving both construction and interpretation; second, that in which the mind deals with the sentence in its diversity, involving both construction and interpretation. These two stages arrange themselves into four phases.

THE FIRST PHASE—(CONSTRUCTION).

In this phase of the subject the attempt is made to establish the child in habits of using correct language by leading him to use correct language in expressing ideas arising from considering systematically an individual object viewed as possessing fixed attributes. In this work the emphasis of the child's attention is to be upon the object and its attributes. Some particular object accessible to all the children should be selected—as, for example, the teacher's bell upon the table. Since all the other relations are largely determined by its purpose, this is the first attribute to be systematically worked out. Then follow in order the thinking out and expressing of the ideas of its place, time, cause, effect, qualities, conditions, and lastly, parts. Each of these attributes, when it has been clearly comprehended and expressed, is to be viewed in relation to the purpose. For example, after the children determine exactly the position or place of the bell, they are to be led to consider whether the purpose has anything to do in determining its place or position.

THE SECOND PHASE—(INTERPRETATION).

The second line of work in dealing with the sentence in its unity, is that in which the isolated sentence is considered. By the expression "isolated sentence" is meant any sentence placed before the pupils for study out of its connections. For example, a paragraph in a newspaper in giving an account of the attack of a panther upon a bear said: "It moved carefully forward, and fiercely sprang upon its victim." If the

teacher should select a part of this expression—*It moved carefully forward*—it would constitute what is meant here by the isolated sentence. The child in studying such sentences is first led to determine the things that might be true in order that the sentence be correctly used; that is, he is led to construct a set of circumstances under which the given sentence might have been uttered. For example, in the given case the pupil might image the following set of circumstances: A steamer ascending a river, slackening its speed and entering into the rapids. Having thought out the circumstances, he would show the force of the selected expression by giving expression to the thought in his mind as follows: "I saw a steamer moving up the river. It was near the rapids. After slackening its speed, *it moved carefully forward.*" After the pupils of the class have expressed in a clear and compact form the various sets of circumstances that they have imaged as a suitable basis for the expression, each pupil is led not only to decide the meaning of each word in the given sentence from the conditions which he has imaged, but he is led to decide the force of each word from all the images presented.

The working out of the exact use and meaning of each word in a given sentence, after the circumstances giving rise to the sentence have been taught—is an excellent exercise for developing a basis that may be used in later years in dealing with the ideas of person, number, gender, and case, and the relations of the parts of the sentence to each other.

THE THIRD PHASE—(CONSTRUCTION).

This work involves not only the construction of single sentences to express the ideas arising from the consideration of an object, but also the combination of these sentences, their co-ordination, and their order of succession. Let the object be, for example, the transom above a given door. The pupils are to be led to embody their ideas of its purpose, place, time, cause, effect, condition, qualities, actions, and parts in single sentences as in the first phase. These sentences are to be placed upon the blackboard or upon the slates. In the latter part of the lesson or in a subsequent lesson, the pupil is to determine which of the sentences express closely related ideas, so as to give grounds for combination; which sentence should be first, which second, etc.; which sentence being employed would make unnecessary one or more of the given sentences, etc. At first the following sentences might have been given:

The transom is twenty inches long.

The transom is ten inches wide.

The transom is used to give light.

The transom is used for ventilation.

Afterwards the pupils would be led to study order of statement and the degree of combination that could be made. This might result in some such expression as the following: This transom is used to furnish light and ventilation. It is twenty inches long and ten wide.

The work in the first and third phases may deal with an object having changing attributes (narration) and with class attributes (expression).

THE FOURTH PHASE—(INTERPRETATION).

The fourth phase is mainly interpretation, although it involves, to a degree, construction. This work is based primarily upon the uses and meaning of words, phrases and clauses as obtained from the work of the three previous phases, and related work. The principal device is *substitution*.

Since in order to make a good substitution the pupil must compare two expressions for the same thought and determine which most clearly expresses the shade of meaning that the author intended to convey, he gains not only a mastery over these forms, but at the same time secures fullness and variety of expression.

The work in substitution is designed to give the pupil the basis for the future study of the different parts of speech, phrases and clauses. The following illustrations of work in substitution are selected from a paper upon that point:

“Take the substitution of *was covered*, for the word *covered* in the sentence—The snow *covered* the ground. The pupil must first see that the word *covered* shows:—

- (a) The condition of the ground.
- (b) What the snow did.
- (c) Past time.

He is then to see that the expression *was covered*, in the sentence—The ground *was covered* with snow—is the same in use and meaning, but that it emphasizes the condition of the ground, while the first makes most prominent what the snow did. This having been carefully done, the pupil is then ready to weigh the two expressions as to their comparative fitness to express the idea. He must see that the thought to be expressed

as it exists in the mind of the one who wishes to use the sentence, determine the form of his expression. If the thinker wishes to emphasize an attribute of the snow or what the snow did, he will use the form; if the condition of the ground is to be made more prominent, second form must be used.

It is a great advance for the pupil to see, as he is perfectly able to in this Language work, that the expression is determined by the thought in the mind of the thinker. As a further illustration, consider the substitution of the adverbial clause for the adverbial phrase, taking the following as the sentences:

The boat sank *in deep water*.

The boat sank *where the water was deep*.

Clearly the question to be determined is whether or not both sentences convey the idea that the whole of the body of water was deep. If we decide that the first means a body of water which was equally deep throughout, and that the second makes the one who reads the sentence think of a body of water not equally deep throughout, the pupil may consider them as to their comparative appropriateness in expressing the thought intended, and be able to decide the sentence to be used as determined by the exact thought in mind. After the idea expressed in each part of the second sentence has been clearly shown, further distinction is afforded by uniting the two ideas expressed in the sentences into one thought expressed by one compound sentence with two coordinate clauses. This makes it necessary that the pupil shall determine the meaning of the thought in the original sentence, and be able to give it the place in the new sentence which will indicate that it is the more prominent."

These four phases of Language work presented in a simple but systematic way, based strictly upon simple thoughts which the pupil himself constructs, and presented with the emphasis of his attention upon the thought, will form a substantial basis for the *introspective* study of Grammar.

It has seemed to me that the highest range of human talent is distinguished, not by the power of doing well any one particular thing, but by that power of doing well anything which we resolutely determine to do.—*Francis Wayland*.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal in Indianapolis Schools.]

ASSIGNING THE LESSON.

ASSIGNING lessons is a very important part of a teacher's work. To do it right takes careful and thoughtful preparation. It is too often done in a "slip shod" manner after the time allotted to the recitation has expired. To say this is wrong is making a very mild statement about it. Since it is better to present the good than to even hint at the bad, we submit the following :

The pupils were ready to begin the study of the pronoun. They had just finished the lesson. Ten minutes before time to close the recitation the teacher began to assign the next lesson. He did not ask them "about how many pages" they thought they could take. He said that the words they had been studying made them think of objects by naming the objects. "In the next lesson" you will find some words that make you think of objects without naming them. From the sentences in your book and from some I dictate to you, I wish you to select those words and write them in one column." The sentences of their book contained the following pronouns: *we, she, I, you, it, he, they, those*. The teacher dictated the following sentences :

You who are to do this work must do it thoughtfully.

Pupils who attend closely to what is said will be able to prepare the lesson that I give.

I, whom you all know, must study how to do my work, if I succeed in doing it well.

He then told them that when they had arranged these words in one column as directed, they might make another study of them. Some of them mean the speaker, some mean what is spoken to, some mean that which is spoken of. "How many columns shall we have?" "Three." "Right; you may note that."

"You will find on further study of these words that some of them may mean the speaker in one sentence, what is spoken to in another, and that which is spoken of in another. Others can not be so used. You make a classification of them from this study."

We were so interested in the assigning of this lesson that we determined to go back the next day and hear the recitation that followed it.

THE RECITATION.

The first thing the teacher did in this recitation was ascertaining preparation the class had made. He asked each pupil to count words in the first column. All stood as soon as they were counted. Every pupil sat when his number was read, so that in a very short time all were seated. The teacher knowing the number of pronouns in the lesson had a pretty fair idea of the amount of preparation on this part of the lesson. He tested the class on the other parts of the lesson in a similar way. We were all satisfied that as a class they had put forth proper effort to prepare the lesson. As yet no one knew how well they had judged in making their classifications. A pupil was called upon to read the words in his first column. As he did so the other members of the class compared their lists with his. When he had finished reading several hands were up, indicating that there was a difference of opinion. The teacher quietly called on one and another and another until all had been heard, and led to agree on a list of words that mean objects without naming them.

Pupils were allowed, even encouraged, to give their opinions without reasons. One pupil said he agreed with the list that had been read, but thought a word had been omitted; viz., the word *that*. Some argued that the word *that* could not mean an object. The sentence containing the word was called up. "Pupils — will be able to prepare the lesson that I give you." The objecting pupil asked what the word *that* meant in the clause I gave you. Some one said, "Why, whatever I gave." "Well, I gave the lesson, so then *that* must mean the object of the lesson." Just here the teacher substituted *which* for *that*, and asked if the meanings were substantially the same.

But before they reached this conclusion the teacher asked the class if there were a word in the sentence meaning the same thing that the word *that* in the lesson means. A pupil who had studied grammar before, but not in this way, said promptly *you*. He knew by the form that "*you*" is a pronoun, and supposed the teacher was asking for a pronoun. He, therefore, answered without even thinking of the meaning of the word as used in the sentence, or of the meaning of the teacher's question. The teacher

without any ado about it, said, "Who gave that sentence?" "The teacher," said the pupil. "To whom did he give it?" "To the class." "What word in the sentence means the pupil?" "You," said the pupil, after reading the sentence over and thinking a moment.

There was very little trouble in classifying them on the basis of whether they meant the speaker, what is spoken to, and what is spoken of. Some one suggested that *we* meant the speaker and others that agreed with him. There was some doubt expressed about the *agreeing* with him. By the skillful leadership of the teacher they concluded that *we* meant the speaker and all that he included with himself.

There were some suggestions as to further classifications that might be made. One boy said that some of the words meant persons, some meant animals, and some meant or *might* mean things without life. The teacher admitted this in an approving way and said that he did not care for those classifications at present.

There was some discussion over their third classification. Some had read their grammars in a careless way and had concluded that personal pronouns must mean persons. The teacher had not said anything about personal pronouns, however. But some pupil said those in the first column are personal pronouns because they refer to persons. Another pupil replied that he could use the word *it* in a sentence without having it refer to a person. "The teacher gave us this hard lesson and we studied *it*." He said that the word *it*, here referred to lesson.

One pupil said he did not see how the word *who* could mean any of the three. Another was ready with the following: "I, who speak to you who do not understand what he who recited said, will explain." No further explanation was needed.

We had a great desire to know what would be assigned for the next lesson, but if we had said this article would be entirely too long.

We went away thinking how much better this is than telling them to "read the fine print" and "learn the coarse print by heart."

TO DIRECT STUDY.

\$24 is $16\frac{2}{3}\%$ of the sum of A's and B's money, and A's is three times B's; how much has each?

Do you know any part of A's or B's money? What is \$24 a part of?

What part is it? How do you know? What part of A's money is it? Into how many equal parts must the sum of A's money and B's money be divided? How many of these parts will A get? How many will B get?

It is 80 rods between the opposite corners of a square field; how many acres in the field?

Draw a figure representing the field; also a line representing the diagonal rods. What is this line to your figure? Into what figures does it divide your square? What is this line to one of these figures? Can you find the length of one side of one of these figures? What will it be for the square? What will you do with this length when you get it if you wish to find the area of the square?

Is the following a simple, complex, or compound sentence? He who works diligently will succeed eventually?

What are the modifiers of the subject and predicate? Are any of these modifiers clauses? What kind of sentence has a modifying clause in it?

THE greatest of all Teachers once said, in describing His own mission, "I am come that they might have life, and that they might have it abundantly." And may we not without irreverence say that this is the humble and far off way, the aim of every true teacher in the world? He wants to help his pupil to *live* a fuller, a richer, a more interesting, a more useful life. He wants so to train the scholar that no one of his intellectual or moral resources shall be wasted.

That mind and soul according well,
May make one music.

No meaner ideal than this ought to satisfy even the humblest who profess the teacher's profession.—*Fitch*.

It was Plato who said in his "Republic" that we never reach our ideals, for as soon as we seem to gain one ideal we find others, and we rise higher and higher, urging us on to them. What a pleasant thought! To climb what seems the highest mountain round about us, expect to survey the country around when on its peak, when lo! its summit gives place and loftier ranges present themselves to view. Coleridge put the same thought in another way: "We strive to ascend, and ascend, and strive." Let each of us strive to ascend one peak this year.—*Western Journal*.

GENERAL INFORMATION.

THE ten leading cities, according to the last census, are: New York, Chicago, Philadelphia, Brooklyn, Baltimore, St. Louis, Boston, Cincinnati, San Francisco, Pittsburg. The first three have each a population of over one million.

THE buffalo that were once so numerous on our western plains have almost disappeared. But they have found a home in the plains of Northern Australia, where they are becoming quite numerous and large. They are said to be descendents of some landed at Port Essington about the year 1829.

THE following is a brief statement of the "Australian Ballot Reform":

1. Ballots printed by the state or entire body of voters, on which appear the names of all the candidates. 2. Secret compartments into which the voters enter and place a cross against the names of those candidates for whom they desire to vote. From this it will be seen that the voter must know how to read and make "his mark"

A BILL has just been passed by Congress to build a bridge across the Hudson to connect New York and Jersey City. It will be one of the great bridges of the world. The cables will be four feet in diameter. There will be four of them and each will be made of 15,000 steel wires. The cables of the Brooklyn bridge are much smaller, being only 15 in. in diameter. The anchorage will be larger than the largest of the pyramids of Egypt.

THE following should be read to the geography class studying South America:

OUR SOUTH AMERICAN NEIGHBORS.

Since the holding of the Pan-American Congress, and the likelihood that the commercial and political relations between the United States and the countries represented will become much closer, there has been felt a general desire to know more about them. The South American countries, especially, present an interesting field for study. Those of greatest importance are Brazil, Peru, Chili, and the Argentine Republic. Since the abolition of slavery immigrants have been pouring into Brazil. They are chiefly Italians and Portuguese. In the southern provinces German and Italian colonies have existed for years. A railroad has been

projected, by which the rapids of the Madeira River will be avoided, commerce will be carried to the foot of the Bolivian table-land. Janeiro is the principal outlet of the coffee region, which is reached by means of several railways.

Peru's exports are sugar, cotton, nitrate of soda, Peruvian bark, llama, vicuna, and sheep's wool. Railroads are now building to the mines in the table-lands. One is from the seaport of Mollendo to Iquitos. Titicaca. Half of the people of Peru are pure Indians. In Chile the white population predominates. The products include guano, nitrate of soda, gold, silver, copper, and wheat. The Argentine Republic consists of a vast plain sloping down to the Atlantic from the mountains in the west and northwest. The provinces near the estuary of the La Plata possess a very agreeable climate, and are rapidly filling up with settlers from Italy, Spain, and southern France. The Parana River is navigable for sea-going vessels for a long distance. This country is of great commercial importance, the largest production being that of wool. In the neighboring republic, Uruguay, the principal industry is cattle raising.—*The School Journal.*

AMERICAN SALARIES.

PRESIDENT of the United States	\$50,000
Vice-President and Cabinet Officers.	8,000
United States Senators (mileage added)	5,000
Members of Congress.	5,000
Chief Justice	10,000
Associate Justices	10,000
Ministers to Germany, Great Britain, France, Russia, each	17,000
To Brazil, China, Austria-Hungary, Italy, Mexico, Japan, Spain.	12,000
To Chili, Peru, and Central America	10,000
Others from	4,000 to 7,000
Generals of Armies.	13,000
Lieutenant-General.	11,000
Major-General.	7,000
Brigadier-General	5,000
Admiral	13,000

EDUCATION means training for life. Lives, not lessons, are dealt with. Corollary, no system, which battens on books, is true.—*Thring.*

COUNTRY SCHOOL DEPARTMENT.

[Beginning with September, A. N. CECRAFT, Supt. of Franklin County, will be Editor of this Department.—EDITOR.]

HOW TO GOVERN A SCHOOL.

BY G. P. B.

RULE is an order of what shall or shall not be done in a certain case. It requires that the pupil compare his conduct with the rule and modify it or not as the rule demands.

The better practice is to have no rule, but to get the pupils' assent to the proposition that every one ought to do right. Then the question of what is right is a matter to be decided when it arises. It is pretty safe to affirm that nothing better be enforced in the school which does not commend itself to the pupils' sense of right when fully presented.

Some things are prohibited in school, not because they are wrong in themselves, but because they would work harm to the school. It is not difficult to make the child see that the standard of what is right in the school is fixed by what would be permissible for all to do in the given case. What can not be permitted to every one in a like case can not be permitted to any one. "So act that the rule of your action might be adopted by every other one as his rule of conduct." This is the principle that ought always to be kept before the mind of the pupil. Try it with whispering, for example. Every pupil sees that what is permitted in his case must be permitted in every case. There will be but few cases in which he will be able to say that his act of whispering could be followed by all without injury to the school.

Now it is a much better education for the child that he be encouraged to determine whether his act is right or wrong when compared with this principle of conduct that is of general application to society everywhere, than to require him to follow a definite rule. It may not be so easy, and may take more time, and there may be more acts of disorder resulting from wrong judgment or wrong disposition, but it is better education.

Then there is another motive against whispering. Not only the pupil's duty to the whole school demands that it shall be avoided when it is not right, but he may be led to see that his own education is enhanced by resisting all temptation to whisper. It is a test of his power over his im-

pulses. If this matter is properly presented to children, and the teacher carries the right atmosphere with him always, a great interest can be awakened in the pupil in the development of his power of self control. If he sees every indulgence to be a confession of weakness, he will be constantly bracing up to resist the temptation.

But all this demands that there be a serious, earnest effort on the part of the teacher to make the government of the school a means to *the education of the child*. The teacher who does not see that "school government" is a much more important agency in the education of the child than are the branches of study, needs to revise his conception of the purpose and scope of the school.

But suppose the child knows what is right, but will not do it. What then? Always bear in mind that if the child's conviction of what is right is in accord with your own the battle is more than half won in his case. The motive of right often needs to be reinforced by allurements of different kinds. The right must be made attractive. This is what is called persuasion. The legitimate *rewards* of right doing can be made to strengthen the *motive* of right. Hence the teacher can make right doing attractive by certain privileges that result from it or can be properly attached to it. These are perfectly legitimate influences for the teacher to use. But he must be careful to avoid rewards that are external or foreign to the obedience sought.

When these influences fail, the teacher may make the motive of right relatively attractive and so reinforce it. That is, he may make the opposite road immediately painful. And he may increase the pain of the wrong road until the pupil will choose the right in preference. This is the defense of pain as an element of school government.—*The Progressive School Journal*.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This is a new Department, and is edited by W. N. HAILMAN, Supt. of the La Porte Schools. He is also the author of several educational works.]

[The editor of this department is on vacation this month, and his "selections" have been made by the following excellent selections.—ED.]

SUNBEAM FAIRIES.

IF a sunset were as rare as a comet, the people would all be upon the hill-tops—astronomers with their telescopes, poets with their pens, artists with their brushes—to capture what they could of it and give it immortality. Or, if only once in a year the eastern skies

sunrise, we should be out of bed betimes that morning to watch the gold and crimson pageant passing up the sky. But because these glories face us every day, we are color-blind to them."

The Kindergarten is to help our children to a fuller vision—is to lead them *to see*. Did you ever think how many people there are, who, "having eyes, see not?"

Ruskin says: "Hundreds of people can talk for one who can think, but thousands can think for one who can see. To see clearly is poetry, prophecy, religion, all in one." A part of our work is to bring the little ones to the place where they shall "find tongues in trees, books in the running brooks, sermons in stones, and good in everything." To do this, these things must be spiritualized, personified in the imagination. Once make a child feel that a kitten, a bird, or even a butterfly has a sensitive organism, *something* like his own, and you will take away an inclination to cruelty (which is but the result of ignorance). So, if you show *the life* of a flower, personifying it in all its being, a feeling of companionship will be engendered and the destructive tendency removed.

Again, if the sunbeams be seen to accomplish a great and beautiful work, a love and reverence for the "every-day" sunshine will most surely be awakened. Before the summer days and the study of plant-life, it will be delightful to listen to the sunbeam fairies, to watch them at their work and play and learn lessons from them. What we admire most, or have our thought centered on, we unconsciously grow like. How important, then, that our children be occupied with the pure and beautiful. They may become "sunbeams," letting their light shine, to the glory of the Father.—FREDRICA BEARD, in *The Kindergarten*.

A READING LESSON.

THE following terse and lucid description of a reading lesson is found in *Quick's Essays*:

I had the good fortune, some years ago, to be present at the lessons given by a very excellent teacher to the youngest class, consisting both of boys and girls, at the first *Burger-schule* of Leipsic. In Saxony the schooling which the state demands for each child, begins at six years old, and lasts till fourteen. These children were, therefore, between six and seven. In one year, a certain Dr. Vater taught them to read, write, and reckon. His method was as follows:

Each child had a book with pictures of objects, such as a hat, a etc. Under the picture was the name of the object in printing and ing characters, and also a couplet about the object. The children h opened their books and found the picture of a hat, the teacher sh them a hat, and told them a tale connected with one. He then a the children questions about his story, and about the hat he had hand—what was the color of it? etc. He then drew a hat on the b board, and made the children copy it on their slates. Next he wro word “hat,” and told them that for people who could read this d well as the picture. The children then copied the word on their s The teacher proceeded to analyze the word “hat.” “It is made said he, “of three sounds, the most important of which is the *a*, w comes in the middle.” In all cases the vowel sound was first ascerta in every syllable, and then was given an approximation to the conson sounds before and after. The couplet was now read by the teacher the children repeated it after him. In this way the book had to be wo over and over till the children were perfectly familiar with every in it.

These children had been already six months thus employed w visited the school, and knew the book pretty thoroughly. To test knowledge, Dr. Vater wrote a number of capitals at random on the b and called out a boy to tell him the words having these capitals as ini This boy had to call out a girl to do something of the kind, she a and so forth. Everything was done very smartly, both by master children. The best proof I saw of their accuracy and quickness was The master traced words from the book very rapidly with a stick o blackboard, and the children always called out the right word, tho often could not follow him. He also wrote with chalk words whic children had never seen, and made them name first the vowel so then the consonantal, then combine them.

I have been thus minute in my description of this lesson, beca seems to me an admirable example of the way in which children bet six and eight years of age should be taught. The method was arra and the book prepared by the late Dr. Vogel, who was then direc the school. Its merits, as its author pointed out to me, are: 1. T connects the instruction with objects of which the child has alrea idea in his mind, and so associates new knowledge with old; 2. T gives the children plenty to do as well as to learn, a point on which

Doctor was very emphatic; 3. That it makes the children go over the same matter in various ways, till they have *learned a little thoroughly*, and then applies their knowledge to the acquirement of more.

Here the Doctor seems to have followed Jacotot. But though the method was no doubt a good one, I must say its success at Leipsic was due at least as much to Dr. Vater as to Dr. Vogel. This gentleman had been taking the youngest class in this school for twenty years, and, whether by practice or natural talent, he had acquired precisely the right manner for keeping children's attention. He was energetic without bustle and excitement, and quiet without a suspicion of dullness or apathy. By frequently changing the employment of the class, and requiring smartness in everything that was done, he kept them all on the alert.

The lesson I have described was followed without pause by one in arithmetic, the two together occupying an hour and three-quarters, and the interest of the children never flagged throughout. It is possible to teach children, at this stage at least, without making them hate their work, and dread the sound of the school bell.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

THE NATIONAL EDUCATIONAL ASSOCIATION.

The National Association at St. Paul has come and gone and made its record. As predicted it was one of the largest and one of the most interesting yet held. The program was a good one and those chosen to take part were nearly all there and did their work well. Owing to the fact that the Association was held a week earlier than usual, and the New England, the New York, and the Pennsylvania Associations were in session the same week, the attendance from the East was not so large as usual, but it was well represented. There were eleven ex-presidents of the Association in attendance, and they held a "reunion" and had their pictures taken in a group.

President Canfield made an excellent presiding officer. The push and snap exhibited in his work as secretary in previous years, and in planning for this meeting, did not forsake him on this occasion. The program was *full* and everything had to be done on *time* or else much must be crowded out. Nothing was left out except the superfluous ends of various papers and speeches that extended beyond the time allotted to them. At the end of the time the gavel

fell and speech stopped. The Association enjoyed this whether the est speakers did or not.

Indiana was represented by a delegation of about one hundred. They a reunion one evening and had an enjoyable time.

St. Paul and the local committee deserve special credit for the splendid done in providing for the Association. The best citizens opened their h for those who did not go to the hotels, and great satisfaction was express every hand.

The officers of the Association for the coming year are: W. R. Ga Nashville, Tenn., President; E. H. Cook, New York, Secretary; J. M. G wood, Kansas City, Treasurer.

The next place of meeting will probably be Saratoga, N. Y.

REDUCED PRICES OF BOOKS.

The Journal stated editorially last month that the American Book Com had announced a general reduction in the price of its books and made comment thereon.

Letters from several other book houses claim that the article is misle and should be corrected in justice to other dealers. They claim that whil reduction to dealers has not been publicly announced, all the houses had uniformly a part of the reduction now published, while Harpers, on their list, and Appletons on their readers, had given a larger discount than now b The letters further claim that all the other houses are giving the same disc

The Journal desires above everything else to be just, truthful, and imp The fact that some reduction had always been made from wholesale pri dealers, was not known to the Journal and is not known to the general p The *facts* seem to be that the reduction to dealers in the aggregate has increased *on condition that they sign a contract to sell the books at the list p* This regulates the *selling price* and it is certain that the reduction to the p will be as much as the per cent. named, albeit that a part of it comes o retail dealer. If the dealer is not required to do more than his share the lishers should certainly have credit for securing the reduction.

The Journal is glad to note that other book publishers are making the discount to dealers, and the prospects are fair for cheaper books for the peop

HENRY BARNARD.

Henry Barnard, turning his 80th year, friend and co-laborer with H Mann, ranks next after Mann as the great reformer in our Education, did work for Rhode Island and Connecticut in reforming the public schools then devoted his life and a considerable fortune to the work of providing a to the great works on Education in all languages through translation English. He printed and published thirty-one large volumes of nearly

pages each, containing the choicest and most instructive parts of Educational literature, and with the result of sinking his fortune of \$50,000 by degrees, in his attempt to provide so munificently for American teachers. His work is done, but he finds himself embarrassed in his old age, by debts and mortgages to a vexatious degree.

The suggestion has been made, and seconded by many of our best teachers, to form a stock company and purchase the plates of the *American Journal of Education*, and thereby secure the two good results of relieving the noble man from the pinchings of poverty and at the same time saving the stereotype plates of the 31 volumes from the melting pot.

Mr. Barnard has reprinted separate articles and treatises from the plates of his journal—52 volumes of treatises and 1,000 pamphlets containing separate articles.

He has on hand in his home at Hartford, volumes of the *Journal*, already printed, to the amount of at least \$15,000, counting at half retail price, and also other printed matter to the amount of \$5,000 to \$10,000. The plates, which will cost at present prices \$30,000, swell the total to \$50,000.

It is proposed to turn this all over to the Barnard Educational Company for \$25,000, the stock to be raised by the sale of *one dollar shares*.

The Company proposes to issue these one dollar shares to all who will take them, as follows:

a. One share entitles the purchaser to a discount of 25% in purchasing any of the Henry Barnard publications.

b. Five shares entitle the purchaser to a like discount of one-third from the retail price.

Hundreds of Indiana teachers should take at least one share of stock for the sake of helping Mr. Barnard, even if they do not wish to purchase any of his publications.

R. G. Boone, Bloomington; W. N. Hailman, La Porte; or the Editor of the *Journal* will receive and forward subscriptions.

THE NEW SCHOOL-BOOK LAW.

SOME MORE DISPUTED POINTS SETTLED BY THE ATTORNEY-GENERAL.

At the request of Gov. Hovey, Attorney-General Michener recently gave an opinion in regard to some disputed points of the school-book law which will be of great interest to trustees, superintendents, and county commissioners throughout the state. The opinion, in full, is as follows:

INDIANAPOLIS, July 18, 1890.

The Hon. Alvin P. Hovey, Governor of Indiana:

SIR—I am in receipt of the following communication addressed to you by the Indiana School-Book Company, which you have submitted for my consideration:

Controversies have arisen in some parts of the state concerning the construction to be placed on some parts of the contract which we have with the State of

Indiana to furnish school text-books. With the desire that we may fully understand what our rights are we request that you submit the following questions to the Attorney-General and ask an official opinion from him as to each of them:

1. At the outset of the business in which we are engaged, we suggest to each county superintendent that, as a matter of convenience to him, and particularly to the school trustees, we would, when requested, instead of insisting on our right to ship the books for the whole county in bulk to him, honor requisitions for books to be put up in packages for each school corporation in the county, and to ship such packages, freight prepaid, consigned to the superintendent, to the different railroad stations designated by him, so that the trustee of each school corporation could procure the books intended for his school at a railroad station most convenient to him. We desire to ask whether a county superintendent who ordered books shipped as above stated, and delivered to the trustee at the designated railroad station, can legally accept as so much cash, in his quarterly settlement with the trustee for sale of school-books, the amount for drayage incurred by the trustee in transporting the books from the station to the place where he stores them?

2. Can a county superintendent legally accept as so much cash in his quarterly statement for sale of school books, a bill for a postal money-order; bill having been paid by the trustee for the money-order so that he might have it sent to the county superintendent by mail?

3. Can a county superintendent legally accept as so much cash, in his quarterly settlement with the trustee for sale of school-books, a receipt for extra charges paid by the trustee on books which were re-shipped by the county superintendent to the trustee, the transportation of the books to the county superintendent having been prepaid by the contractor?

4. Can a county superintendent legally withhold any part of moneys turned over to him by trustees, at quarterly settlement for sale of school-books, for the amount that said county superintendent claims that he has been compelled to pay out on account of buying drafts at bank with which to remit the cash to the contractor?

After setting out some of the provisions of the text-book act (Acts '89, p. 100), which seem to me applicable to the questions asked, I will proceed to answer such questions seriatim:

Sec. 3 of the act provides that the price of the books contracted for "shall include all cost and charges for transportation and delivery to the several county superintendents." The contract entered into between the text-book commissioners and the contractor for the furnishing of text books contains the following provision. Sec. 7 of the act above mentioned provides that it shall be the duty of school trustees to certify the number and character of text-books recognized for use in the schools of their respective corporations to the superintendent of their respective counties. The section then directs that the county superintendent shall forthwith make a requisition for said books upon the state superintendent of public instruction, who shall, in turn, make a requisition for the same on the contractor. It is made the duty of the latter to ship the books so ordered directly to the county school superintendent of the several counties of this state. On receipt of the books, the county superintendent is required to notify the proper trustee of the fact. "It shall then be the duty of said school trustee to immediately procure and take charge and custody of the books assigned to him. At the expiration of three months after the receipt of the books, the trustee is required to "make a full and complete report to the county superintendent of the number of books sold and the amount of moneys received therefor, and the number of books on hand, and at the time of making such report he shall pay over to the county superintendent all moneys received by him for the same with which he is chargeable from the sales of books in his hands." Sec. 8.

the act requires the county superintendent, within ten days after receiving the quarterly report of the trustee, as in the act provided, to make a report of the books sold, to the contractor, "which report shall be accompanied by all cash received by him from the school officers from sales of books by them sold."

1. It is the duty of the contractor, under the above act, to "ship the books so ordered directly to the county school superintendents of the several counties of the state." "All costs and charges for transportation and delivery to the several county superintendents" must be borne by the contractor. When the books have been thus shipped, and the county superintendent taken them under his control, the duty of the contractor is at an end; the burden of caring for and disposing of the books is from that moment upon the local authorities. On receipt of the books, the superintendent must then notify the trustee of the fact, and it thereupon becomes the duty of the latter, in the language of the act, "to immediately procure and take charge and custody" of them. These burdens must be held to severally rest on the shoulders on which the legislature placed them. The contractor's obligation is marked out by the statute which provided for the obligation, and the contractor has a right to reply and insist upon the performance of all obligations devolved upon officers by the act. As the statute requires the trustee "to immediately procure and take charge of the books" ordered for his school corporation, it follows that the burden is on him to do so, and that he can not deduct from the money which belongs to the contractor an expense incurred in discharge of the duty. The statute, I may further suggest, directs that the trustee "shall pay over to the county superintendent all moneys received by him." It is necessary, therefore, to comply with the statute that the gross amount of money due be turned over.

2. I answer this question in the negative. The duty is on the trustee to pay the county superintendent all moneys received by him from the sale of books. Much of the reasoning of the answer to the first question is applicable to this.

3. The county superintendent should not ship books to a trustee unless requested to do so. By so doing without request the superintendent would render himself personally liable to the trustee for the amount of carriage which the latter was compelled to pay. No deduction can be made by the trustee, however, on such account, for the moneys he is required by the text-book act to turn over to the county superintendent constitute a trust fund and should not suffer diminution on the account stated.

4. The statute requires that the report of the county superintendent to the contractor "shall be accompanied by *all* cash received by him from the school officers from sales of books by them sold." The conclusion can not be escaped that this provision means that the gross amount of all sales shall be turned over to the contractor.

In conclusion, I may say, to prevent misunderstanding, that, in my opinion, where county superintendents or school trustees are necessarily compelled to expend money in the discharge of their duties under the school-book act, they may claim reimbursement in their settlement with the commissioners, because, as it seems to me, such charges are primarily claims against the corporations which such school officers respectively represent.

Respectfully submitted,

L. T. MICHENER, *Attorney Gen.*

The above decisions of the Attorney-General will be of value in more ways than one. In addition to settling some disputed points in regard to the new school-book law, they also settle a general law principle which will be of value to many county superintendents. The principle is this: "When a law imposes

a duty upon an officer, it carries with it by implication, the payment of a necessary expense, incurred in the discharge of the imposed obligation."

The law requires a superintendent to have an office: it therefore follows the county commissioners should provide such an office and furnish it. The law makes it necessary that a superintendent do a great deal of correspondence and in other ways make suggestions and give information to his teachers. It follows that the commissioners should provide necessary stationery and postage and pay for printing necessary reports and circulars.

The law allows the superintendent a certain per diem for services, and does not expect him to be at expense in the discharge of imposed duties. The county commissioners already recognize the above principle and act upon it, but in a few counties the superintendents are still compelled to furnish their own office and pay their own stationery and postage bills.

This decision is without doubt good law, and it is certainly good sense. Our "backward" commissioners should profit by it.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN JUNE.

ENGLISH GRAMMAR.—I. Do you regard orthoepy as included in Grammar? Give reasons for your answer.

2. What is the basis of the division of words into parts of speech?
3. What are the necessary elements of a thought or judgment? How do you know these to be necessary?
4. Analyze: In the eleventh century England yielded to the Normans.
5. What is the essential characteristic of a verb?
6. Define a regular verb; an irregular verb. Which are verbs of the strong conjugation? Which of the weak?
7. What reason is there for calling such expressions as *did go*, *shall go*, *will have gone*, verb phrases?
8. What do the italicized words in the following sentences modify?
 - (a) Has the Lord spoken *only* by Moses?
 - (b) The bridge across the river *just* below the falls was swept away.
9. What is meant by an auxiliary verb? Give the principal auxiliary verbs.
10. Analyze this sentence: The Grecian Empire reached the height of its military glory under Alexander the Great.

SCIENCE OF EDUCATION.—I. What are the objects to be secured by recitation?

2. What are the purposes of the written examination?
3. In your judgment, what is the true basis of promotion?
4. Do you think it is desirable to have music in the public schools? What ends is it fitted to promote?

5. What are the objects to be secured by instruction in writing?
6. What do you understand by the laboratory method of teaching a subject?
7. One teacher of physiology requires the pupils to commit the text describing the eye. He questions them on the text and has them study carefully the illustrations and diagrams given in the book. Another teacher brings before his class an actual eye; the pupils examine it, and it is dissected before them. Compare and contrast these methods in respect to their educational value.

U. S. HISTORY.—1. Why did the colonists in the early stages of the war of Independence consider it so important to keep open communication with Canada?

2. What effect did the purchase of Louisiana Territory have on the relation of the U. S. to other powers? What on her own internal organization?
3. Give an account of Perry's victory.
4. Name each of the various attempts at secession by any of the states of the Union, and give the causes in each case.
5. What is "civil service reform"? and what are the conditions of appointment to the Government service under it?
6. On what ground did the officers of the U. S. Army who resigned their places to accept service with the Confederacy justify their action?
7. Describe the circumstances immediately relating to the death of Lincoln.
8. What changes have been made since the Burlingame treaty with China in reference to immigration of Chinese?
9. Write a biography of Horace Greeley or Benjamin Franklin.

(Select eight of the nine.)

ARITHMETIC.—1. What part of 2 days, 7 hrs., 18 min., is 1 day, 3 hrs., 15 minutes?

2. Reduce .1675 bu. to integers of lower denominations.
3. How much money will 16 shares of bank stock bring at $127\frac{3}{4}$, brokerage being $\frac{1}{8}\%$?
4. How do you find the principal when you know the interest, rate, and time?
5. A bought $\frac{2}{7}$ of a manufacturing establishment for \$3,517.85, and B $\frac{4}{11}$ of the same at the same rate. How much did B's share cost?
6. What is the difference between square and cube root?
7. What is the number of acres in a triangular piece of land whose base is 965 rods and altitude 576 rods?
8. What is the area of a surface 12 feet long, 18 inches wide at one end, and 12 inches at the other end, tapering gradually?
9. Write a non-negotiable note.

(Answer any eight.)

GEOGRAPHY.—1. Where are Jamaica, Prince Edward's Island, Vancouver's Island, Tasmania, Formosa?

2. Bound Kentucky.
3. What is a desert? What connection, if any, exists between deserts and salt lakes?

4. What are capes? Name two which are low and sandy, and two which are high and rocky.

5. What is the cañon of the Colorado? Where is it?

6. Which are the chief cotton-producing states?

7. What is the chief river of Austria?

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to standard models.

The orthography of the entire examination will be graded on a scale of 100 and 1 will be deducted for each word incorrectly written.

Or, the county superintendent may conduct the examination in these subjects in any manner he may desire.

PHYSIOLOGY.—1. Why are certain bones hollow, some solid but spongy, and others hard but flat? Give examples to verify your reasons.

2. State how and why exercise increases the circulation of the blood, and facilitates its purification.

3. How is respiration performed? What are its purposes? How may the function be improved? What hindrances to its performance should be avoided?

4. Define synovia, peritoneum, serum, ganglion, tympanum.

5. Write upon the hygiene of digestion, dwelling particularly upon the causes and preventives of dyspepsia.

READING.—“O, Scotia! my dear, my native soil!

For whom my warmest wish to heaven is sent!

Long may thy hardy sons of rustic toil

Be blest with health, and peace, and sweet content.

And, O! may heaven their simple lives prevent

From luxury's contagion, weak and vile! ”

From Burns' "Cotter's Saturday Night"

1. Ask 10 suitable questions, calculated to bring out the meaning of the above selection. 10 points, five each.

2. Write a brief biography of Burns and name his most important works. Mark from 1 to 50.

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. What country is called Scotia?

2. What kind of a country is it?

3. What is the character of people who live in such countries?

4. What is meant by “my native soil”?

5. Define rustic.

6. Who live in Scotia?

7. Why are they contented and happy and peaceful?

8. What are "simple lives"?
9. Define "luxury's contagion."
10. Which is better, a simple life of rustic toil or a life of luxurious ease and idleness?

Robert Burns, the great Scotch poet, was born near Ayr, January 25, 1759, and died July 21, 1796.

His youth was spent in hard labor on the farm, as his father was poor. He began to compose verses at about 16 years of age. Becoming discouraged, he determined to go to Jamaica, but as he was about to depart a favorable offer induced him to go to Edinburg. Here he became famous and enjoyed for a while the friendship of the literati of that city.

His principal productions are Tam O'Shanter, Auld Lang Syne, The Cotter's Saturday Night, the Author's Prayer, Lines to a Mouse, Halloween, etc.

ARITHMETIC.—1. The number which is to be the part must be the numerator, and the number of which it is to be a part must be the denominator.

1 day, 3 hours, 15 minutes = 1635 minutes.

2 days, 7 hours, 18 minutes = 3318 minutes.

$$\frac{1635}{3318} = \frac{545}{1106} \text{ Ans.}$$

3. $127\frac{3}{4} - \frac{1}{8} = 127\frac{5}{8} \%$, net value.

$\$100 \times 1.27\frac{5}{8} = \127.625 , one share.

$\$127.625 \times 16 = \2042 , Ans.

4. Divide the given interest by the decimal corresponding to the interest of \$1.00 for the time and rate; the quotient will be the principal.

5. $\frac{1}{2} : \frac{1}{4} :: \$3517.85 : \$3999.24$, Ans.

7. $\frac{965 \times 576}{2 \times 160} = 1737$ Acres.

8. The average width is 15 in. or $1\frac{1}{4}$ ft. $1\frac{1}{4} \times 12 = 15$ sq. ft.

GEOGRAPHY.—1. Jamaica is directly south of Cuba, in the Caribbean Sea. Prince Edward's Island is in the Gulf of St. Lawrence. Vancouver's Island is on the western coast of North America, in latitude fifty. Tasmania is directly south of Australia. Formosa is near the eastern coast of China.

3. A desert is generally a plateau of more or less elevation, covered with sand and rock, and destitute of moisture or vegetation, as the Sahara and the desert of Gobi. Sometimes the surface is covered with salt or alkali, and if a lake is found in such a locality its waters will be salty. There is no necessary connection between deserts and salt lakes.

5. It is a deep and narrow gorge over 300 miles long, through which the Colorado River flows. It is from 3000 to 7000 feet deep, and lies in Utah and Arizona.

6. Mississippi, Alabama, Texas, Georgia, Louisiana, Arkansas, the Carolinas, Tennessee, and Florida.

PHYSIOLOGY.—1. The long bones are hollow to give them stiffness, as the femur. Some bones are of a spongy nature to prevent jarring or fractures, and

to combine strength and lightness, as the vertebræ. Others are hard and firm to protect the other organs and give attachment to muscles, as the pelvis.

2. If the muscles are called into action they press upon the blood-vessels and force the blood through them more rapidly; hence the heart's action is increased and the lungs require more air.

3. The movements of respiration are performed by the diaphragm and the intercostal muscles, and the abdominal muscles. The purposes of respiration are to supply the lungs with pure air and to carry off the impurities escaped through the lungs. Respiration may be improved by judicious exercise of the whole body; by occasionally inflating the lungs to their fullest capacity. Tight lacing or tight clothing should be avoided.

GRAMMAR.—1. Grammar is the art of reading, writing, and speaking a language correctly. Hence as orthœpy teaches the correct pronunciation of words it is properly included in grammar.

2. The meaning and use of words is the basis. The same word is often used as different parts of speech, as it may have different meanings.

3. The necessary elements of a thought are a subject and a predicate. In order to have a thought there must be something to think about; this is the subject. There must be something predicated of the subject; this is the predicate.

4. A simple declarative sentence. England is the subject, yielded is the predicate. Yielded is modified by the phrases in the eleventh century, and the Normans, two adverbial elements.

5. The principal characteristic of verbs is that they denote action, being, state, and that they are necessary to a sentence.

6. A regular verb is one that forms its past indicative, and its perfect participle by adding *d* or *ed* to its present. An irregular verb is one that does not so form its past indicative and perfect participle.

SCIENCE OF EDUCATION.—1. To test the pupil's knowledge of the subject, to impress upon his memory what he has learned; to give additional information and instruction; to give the power of properly expressing what he knows.

2. To test the knowledge and memory of the pupil; an incentive to work by a means of grading pupils.

5. To give proper position and movements. To teach the elements and principles of the letters, their height, slant, and form, and their proper formation.

6. It is learning by *doing*. In zoology and physiology, to have the pupil dissect and examine subjects for himself. In philosophy, to have him perform his own experiments. In botany, to discuss and analyze flowers.

7. The text should be well understood, but need not be committed. As to the text the eye itself should be examined by the pupil. Nothing gives the pupil as thorough knowledge of an object as seeing it and examining it for himself. Every part of the body should be studied in the same way as far as possible.

HISTORY.—1. The colonists expected aid and sympathy from the Canadian government and kept open communication with Canada for that purpose.

2. It prohibited foreign powers from colonizing any portion of the territory or establishing military and naval stations. The United States by this treaty gained a vast inland territory and complete control of the Mississippi Valley.

4. The New England states in 1814 called the Hartford Convention, and threatened a withdrawal from the Union, unless the policy of the administration should be changed. In 1832 South Carolina refused to comply with the U. S. revenue laws, and claimed the right to "nullify" the laws, or withdraw from the Union. In 1861 South Carolina and several other Southern States withdrew from the Union on account of their hostility to Mr. Lincoln's policy on slavery.

5. Civil Service Reform is the abandonment of the policy of appointment of persons to government positions as a reward for party affiliation. Certain appointments are made in the departments, under the Civil Service Commission, on account of competency and fitness.

6. That they owed the first allegiance to their states.

7. Toward the close of the Civil War a conspiracy was formed among some of the enemies of the government for the assassination of Mr. Lincoln and other government officers. On the night of April 14, 1865, Mr. Lincoln was shot in Ford's Theatre, Washington City, by John Wilkes Booth, a half crazy actor. His death occurred the following morning.

8. The Chinese have been prohibited from immigrating to the United States.

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

Q U E R I E S .

262. Were the Walloons Protestants or Roman Catholics? L. KREKE.

263. How and when was Rome saved by geese? J. A. DIVINE.

264. Who is the author of Barnes's Historical Series? H. M. W.

265. Paid \$108 for grain, $\frac{1}{10}$ of it being barley at $62\frac{1}{2}\%$ per bu., and $\frac{2}{3}$ of it wheat at $\$1.87\frac{1}{2}$, and the remainder oats at $37\frac{1}{2}\%$; how many bushels of grain were bought?—*Ind Comp. Arith.*

266. Divide \$121 among 4 boys so that A will have \$3 to B's \$4; B will have \$5 to C's \$6; and C will have \$7 to D's \$8.—*Id.*

267. Bought 21 head of stock for \$221,—cows at \$13, hogs at \$9, and sheep at \$5; how many of each did I buy? D L. JUNGCK.

268. A and B bought a quantity of calico for which they together paid \$30.59. A paid 15¢ per yard for his; the price B paid per yard was equal to $\frac{1}{7}$ of the whole number of yards bought by both. How many yards did each buy, and how much did B pay per yard? E. S. LOOMIS.

ANSWERS.

255. *Me* is the predicate nominative with *be*. The objective form is used for the nominative by enallage.

JAMES F. HOOD.

Me is in the objective case, the direct object of *be*, used transitively. C.

256. Spain had been aiding France in her struggle with England. England had compelled Spain to give up Florida and France, then gave Spain Louisiana as compensation for her loss. Napoleon compelled Spain to give up Louisiana in 1800, that he might establish a military post at the mouth of the Mississippi to encroach upon the United States and England.

257. $\$1268.04 + \$640.97 = \$1909.01$, the gross receipts for the year.

$\$1909.01 \div 2 = \$954.50\frac{1}{2}$, each partner's share.

$\$954.50\frac{1}{2} - \$300 = \$654.50\frac{1}{2}$, net share of each.

But A is to receive the rent, \$600, hence he is entitled to $\$654.50\frac{1}{2} + \$600 = \$1254.50\frac{1}{2}$; but he has received $\$1268.04$, and must therefore pay B $\$13.53\frac{1}{2}$.

LUTHER STANGLE.

258. A mineral is a general term applied to any inorganic substance having a definite chemical composition. A metal is a substance having a peculiar luster called metallic, whether in mass or in powder, insoluble in water, a good conductor of heat and electricity, and usually solid at ordinary temperature. Metals are minerals.

JAMES F. HOOD.

259. The whites paid the Indians so much for all the land they could walk around in so long a time. This was called the walking purchase.—*Id.*

$$\begin{array}{r} 260. (67.5)^2 \times 2 = 9112.50 \\ (94.5)^2 = 8930.25 \end{array}$$

$$\text{Difference} = 182.25$$

$$\sqrt{182.25} = 13.5$$

$$\frac{94.05 - 13.5}{2} = 40.5, \text{ perpendicular.}$$

$$\frac{94.5 + 13.5}{2} = 54, \text{ base.}$$

J. B. ADAMS.

261. A simple declarative sentence, of which the subject is understood. *Is to childhood* is the predicate. or *to childhood* modifies the completion of the verb. *Here* limits the verb. *Our*, *its* and *its* are adjective elements. Gold and gray belong to childhood and are adjective elements.

JAMES F. HOOD.

248. This refers to a legend of the German bishop Hatto, who is said to have stored away great quantities of grain in a tower on an island in the Rhine at a time of famine in order to get high prices for it from the people. Compelled by the popular fury to take refuge in this tower, it is said that while shut up there he was devoured by the swarms of mice that had been attracted thither by the grain.

WALTER KEMPER.

CREDITS.

Walter Kemper, 248.

James F. Hood, 255-6-7-8-9-61.

Belle Simes, 260.

James McMarth, 250-51.

H. A. Ford, 248.

Luther Stangle, 257-60.

J. B. Adams, 260.

Ich Dien, 260.

Let us have a few good queries for the next issue.

No. 268 will be found to be an interesting query by those who investigate it. A number of results may be found.

MISCELLANY.

THE INDIANA SCHOOL-BOOK CO. has moved into new and elegant quarters at 53 W. Washington St.—Room 4—Indianapolis, where they will be glad to see their friends.

THE TEACHER AND EXAMINER, formerly published by J. E. Sherrill, of Daville, has been purchased by T. W. Johnson and A. Jones, of the Normal School at Marion, Ind., and removed to that place.

THE PUBLIC SCHOOL JOURNAL, of Illinois, edited by our old Indiana friend Geo. P. Prown, has added to its other interesting features a Kindergarten Department—to be edited by a professional kindergartner.

DO NOT FORGET that the American Association for the Advancement of Natural Science will begin a week's session in Indianapolis August 19. Many of the leading scientists of the country will be in attendance, and Indiana teachers should attend in large numbers.

IN THE SEPT. JOURNAL Miss Charity Dye, of the Indianapolis high-school, will begin a series of articles on Classic Literature and Stories for Young People. The subject is just now claiming the attention of many of the best teachers, and it is hoped the articles will prove suggestive and helpful.

THE Reading Circle Outlines of Wood's "How to Study Plants," prepared under the direction of the board by Hubert M. Skinner, a former member of the board, is in pamphlet form and very complete. So far as the editor can judge the "Outlines" are complete, suggestive, and must prove very helpful to all who begin this most interesting branch of study.

WABASH CO. is "booming" its educational interests. It has the largest (over 100 members) and best summer normal in its history,—instructed by Messrs. Blackley of Terre Haute, A. A. Williams of Irvington, and C. D. Berry of S. Wabash. Co. Supt. E. O. Dale is working hard to raise teaching to the standard of a real profession, and his efforts are being felt.

INDIANAPOLIS has a "Training School for Nurses." Graduates from this school readily get good wages and steady employment. There are now a few vacancies, and persons who have a tact for caring for the sick and a mind to enter heartily into the work, would do well to apply. For particulars address the secretary of the board, Mrs. C. F. Sayles, Indianapolis.

THE OUTLINES for County Institute Work, as prepared by a special committee of the State Association of County Supts., is the most complete ever made. It takes for granted that the Institute is not the place for academic instruction, but is the place for *professional* work—the study of principles and methods and their illustration and application. The "outlines" are prepared in the light of this thought, and if they are followed intelligently in the instruction the grade of work will be higher than ever before.

"UNCLE SAM" has recently undertaken to *control* the weather. Congress has actually appropriated \$2,000 to pay for dynamiting the sky in order to pro-

duce rain in time of drouth. The money is to be used under the direction of the Department of Agriculture, and was given doubtless to show an interest in the farmers. The belief that cannonading produces rainfall is the groundwork of the appropriation. It is proposed to explode dynamite, perhaps a thousand feet above the earth, and thus produce concussions that will make rain. The Journal lacks confidence.

NO MORE PSYCHOLOGY NEEDED.—A county superintendent received, at a monthly examination, the following answers to the question given:

Question. Name and define the three groups of immaterial powers.

Answers. 1. "Financial," meaning it is immaterial whether a teacher be rich or poor.
2. "Political," as it is immaterial what a teacher's politics are.
3. "Domestic," as it is also immaterial what a teacher's domestic powers are.

DATES OF HOLDING COUNTY INSTITUTES.

July	21—Bartholomew county, Columbus.....	Frank D. Harger.
"	21—Dubois, Jasper.....	George R. Wilson.
"	21—Pike, Winslow.....	M. B. Thomas.
"	21—Vermillion, Perrysville.....	Geo. W. Dealand.
"	28—Jennings, Vernon.....	S. W. Convoy.
"	28—Wells, Bluffton.....	Wm. A. Luce.
"	28—Washington, Salem.....	W. C. Snyder.
"	28—Delaware, Muncie.....	J. O. Lewellen.
August	4—Ohio, Rising Sun.....	Jas. H. Turner.
"	4—Sullivan, Sullivan.....	Jas. H. Marlow.
"	4—Parke, Rockville.....	W. H. Elson.
"	4—Knox, Vincennes.....	W. H. Johnson.
"	4—Tipton, Tipton.....	John R. Bowless.
"	11—Morgan, Martinsville.....	Jas. H. Henry.
"	11—Owen, Spencer.....	Geo. W. Williams.
"	11—Putnam, Greencastle.....	F. M. Lyon.
"	11—Jackson, Brownstown.....	W. B. Black.
"	11—Fountain, Covington.....	Caleb C. Pavey.
"	11—Gibson, Princeton.....	Thos. W. Cullum.
"	11—Grant, Marion.....	Elwood O. Ellis.
"	11—Spencer, Rockport.....	Wm. H. Jackson.
"	11—Dearborn, Lawrenceburg.....	Samuel J. Huston.
"	11—Switzerland, Vevay.....	Jas. A. Van Osdol.
"	11—Rush, Rushville.....	R. F. Conover.
"	11—Johnson, Franklin.....	H. D. Vories.
"	18—Randolph, Winchester.....	J. W. Denny.
"	18—Ripley, Versailles.....	Geo. C. Tyrrel.
"	18—Porter, Valparaiso.....	H. H. Loring.

August	18—Posey, Mt. Vernon	Oscar L. Sewell.
"	18—Vigo, Terre Haute	C. F. Grosjean.
"	18—Wabash, Wabash	L. O. Dale.
"	18—Jasper, Rensselaer	Jno. F. Warren.
"	18—Jay, Portland	J. E. Bishop.
"	18—Floyd, New Albany	Chas. W. Stolzer.
"	18—Hendricks, Danville	Thos. A. Gossett.
"	18—Henry, New Castle	F. A. Cotton.
"	18—Miami, Peru	John F. Lawrence.
"	18—Daviss, Washington	Peter R. Wadsworth.
"	18—Decatur, Greensburg	Luther Braden.
"	18—Franklin, Brookville	A. N. Crecraft.
"	18—Clay, Clay City	W. H. Chillson.
"	18—Cass, Logansport	Harry A. Searight.
"	18—Wayne, Cambridge City	Benj. F. Wissler.
"	18—Warrick, Boonville	Simon W. Taylor.
"	18—Greene, Bloomfield	Wm. M. Moss.
"	18—Newton, Goodland	W. W. Pfrimmer.
"	25—La Porte, La Porte	Oliver Galbreth.
"	25—Lawrence, Bedford	F. B. Hitchcock.
"	25—Madison, Anderson	Willis S. Ellis.
"	25—Monroe, Bloomington	Jno. W. Cravens.
"	25—Montgomery, Crawfordsville	Jno. S. Zuck.
"	25—Union, Liberty	Clarence W. Osborn.
"	25—Vanderburg, Evansville	A. J. Angermeier.
"	25—Martin, Loogootee	John T. Morris.
"	25—Noble, Albion	J. L. Ohlwine.
"	25—Elkart, Goshen	George W. Ellis.
"	25—Fayette, Connersville	B. F. Thiebaud.
"	25—Perry, Cannelton	I. L. Whitehead.
"	25—Clark, Charlestown	Jas. M. Boyer.
"	25—Carroll, Delphi	Wm. A. Barnes.
"	25—Warren, Williamsport	Fremont Goodwin.
"	25—La Grange, La Grange	E. G. Machan.
"	25—Fulton, Rochester	A. J. Dillon.
"	25—Huntington, Huntington	Oliver Kline.
"	25—Brown, Nashville	Chas. W. Snyder.
"	25—Scott, Scottsburg	W. L. Morrison.
"	25—Boone, Lebanon	S. N. Cragun.
"	25—Adams, Decatur	J. F. Snow.
"	25—Shelby, Shelbyville	Geo. A. Rose.
"	25—Marshall, Plymouth	W. E. Bailey.
"	25—Crawford, Marengo	J. W. Goldman.
September	1—White, Monticello	John A. Rothrock.
"	1—Kosciusko, Warsaw	E. J. McAlpine.

September	1—Jefferson, Madison.....	W. M. Amsden.
"	1—Howard, Kokomo.....	John W. Barnes.
"	1—Hancock, Greenfield.....	Quitman Jackson.
"	1—Harrison, Corydon.....	C. W. Thomas.
"	1—Pulaski, Winamac.....	John H. Reddick.
"	1—Lake, Crown Point.....	Frank E. Cooper.
"	1—Hamilton, Sheridan.....	Ellis A. Hutchens.
"	1—DeKalb, Auburn....	C. M. Merica.
"	1—Clinton, Frankfort.....	John W. Lydy.
"	1—Marion, Indianapolis.....	W. B. Flick.
"	8—Benton, Fowler.....	B. F. Johnson.
"	8—Tippecanoe, La Fayette.....	John M. Sullins.
"	8—Orange, Paoli.....	Geo. W. Faucett.
"	8—Blackford, Hartford City.....	J. A. Hindman.
"	8—Starke, Knox.....	W. B. Sinclair.
November	3—Allen, Ft. Wayne.....	Geo. F. Felts.
"	10—Steuben, Angola.....	Robt. V. Carlin.
December	29—Whitley, Columbia City.....	Alex. Knisely.
"	29—St. Joseph, South Bend.....	Calvin Moon.

PERSONAL.

D. T. Powers will remain in charge at Southport next year.

T. E. Maris has been re-elected principal of the Laurel schools.

A. E. Humke has resigned his position in the State Normal School

Chas. N. Peak has been again elected Supt. of the North Vernon schools.

W. F. Barr will continue as principal of the Milroy schools, at an increased salary.

S. A. Harker has been elected for a third year as principal of the New Washington schools.

P. D. Alexander, of Mt. Vernon, has been elected principal of the high-school at Rockport.

John M. Culver has been elected principal of the Delphi high-school *vice* S. B. McCracken, resigned.

Miss Emma Peckinpugh and Mr. John G. Scott were married at Alton, Ind., July 3. Thus they pass away.

J. H. Hayworth, a member of the class of '90 in the Indiana University, will be principal of the Hagerstown high-school next year.

John C. Barrett, who spent last year in doing post-graduate work in Earlham, has been appointed principal of the Muncie high-school.

A. D. Moffit, a graduate of the State University and a student of Johns Hopkins, has been elected principal of the Peru high-school.

J. S. Gamble, for so many years Supt. of Fayette county, was last year principal of the East Connersville school, and has been re elected.

J. E. Polly, principal of the Columbus Normal, reports his school as having had a very successful year, with flattering prospects for the future.

Miss Belle Farquhar, a State Normal graduate, has been engaged to teach History and English Literature in the Indiana Normal at Ridgeville.

John W. Cook, for many years a Professor in the Illinois State Normal, has been made President *vice* E. C. Hewett, resigned—a worthy promotion.

Mrs. Lizzie S. Byers, late assistant in Latin and Algebra, is made Professor of Mathematics in the State Normal School in place of Professor N. Newby, resigned.

W. H. Herishman has been re-elected Supt. of the Delphi schools by a unanimous vote, and is spending his summer in the School of Science at the State University.

W. E. Henry, who has for several years past been principal of the high-school at Peru, will enter the Senior class at the State University next fall and graduate in June, 1891.

Edward Taylor, Supt. of the Vincennes schools, and author of an excellent U. S. History, has just published a set of Reading Charts, to go with the Indiana Series of Readers. See his adve.

Mrs. Eudora Hailman, of La Porte, who was Pres. of the Kindergarten Section of the National Association, did her work so well that she was re-elected to preside over the same Section next year.

W. H. Festich, well known as an Indiana superintendent and institute worker, but now Supt. of schools at El Dorado, Kan., recently made the Journal office a pleasant call. He and his family will spend the summer in this state with friends.

Mary E. Burt has resigned her position in the Cook Co. (Ill.) Normal School and will devote the coming year to literary work. She was recently appointed a member of the Chicago school board, which shows good sense and sound discretion on the part of the Mayor—who appointed her.

Edwin C. Hewett, for more than twenty years past connected with the Illinois State Normal School, and for the past ten years its president, has resigned his place and severed his connection with the school. Mr. Hewett has a national reputation and is best known to Indiana teachers through his popular book on Pedagogy.

T. J. Charlton, one of Indiana's leading Supts., but for several years past the popular Supt. of the Boys' Reformatory at Plainfield, has been urged by many of his friends to make the race for Governor, but he is one of the few men who are satisfied with their present positions. Bro. Charlton is doing a good work and is wise in his decision.

W. D. McCoy, who has been principal of the Twenty-fourth District School in Indianapolis for many years, and who stands high as a teacher and principal,

was recently nominated on the Republican ticket for the legislature. His nomination was highly complimentary, being made on the first ballot and by a large majority. Mr. McCoy is well educated, energetic, courteous, and is well supplied with practical business sense, as evidenced by the fact that he pays more taxes than any other colored man in Indiana. In point of general intelligence he will rank above the average Representative.

Prof. N. Newby, at the close of the past school year, retired from the chair of Mathematics in the State Normal School. He is well known as having directed the mathematical instruction in that institution more than eleven years. The Professor will probably go upon his farm in Kansas, a step which he has had in contemplation for a considerable time.

In speaking of him, the president of the board of trustees says: "His work has been universally satisfactory to the board of trustees as well as to the thousands of students who have received instruction and training from him. He is regarded as exceptionally strong, a logical thinker and clear in his presentation of principles to students."

Joseph Carhart, formerly of the State Normal School, but for several years past Prof. of Rhetoric and Literature in De Pauw University, has been elected President of the Minnesota State Normal School, located at St. Cloud, at a salary of \$2,500.

Prof. Carhart was one of the most, if not the most popular member of the De Pauw faculty, and his place will be hard to fill. Just before the last commencement it was rumored that he thought of resigning, and a petition to the board of trustees, largely signed by students, secured an increase of salary, but it seems that the increase was not sufficient.

In the removal of Prof. Carhart Indiana loses one of its most active, most esteemed, most influential educational workers. For several years past he has been one of the most active members and chairman of the Reading Circle Board, and he was really the originator and inspirer of the Young People's Reading Circle.

The Journal regrets to have him leave the state and wishes him unlimited success in his new and enlarged field of labor.

BOOK TABLE.

THE CENTURY continues to come regularly, laden with the best thoughts of the best people who write. No literary magazine in the world excels it and but few equal it. It is published by the Century Company, Union Square, New York City.

MERRY MELODIES for the school-room, by S. C. Hanson, Supt. of schools at Williamsport, is one of the most popular books of its class published in recent years. It has recently been revised and enlarged, and is what is needed in every school.

THE INDIANAPOLIS NEWS is an evening paper and exceeds in circulation the combined issues of any other three Indiana dailies. It is *independent* in everything, neutral in nothing. It is the best "news"-paper in the state for the price, and also the best advertising medium. It costs only 2 cts. or 10 cts. a week and contains all the news that busy people have time to read. It is published by John H. Holiday & Co.

HARPER'S SCHOOL SPEAKER is the title of a little book recently published by Harper & Bros. and compiled by James Baldwin, an old Indiana Supt. The book is in two parts, Arbor Day and Memorial Day, and most of the selections have been made with reference to these two days. These days have grown to be permanent institutions in this country, and such a book will certainly meet a felt want on the part of many teachers. After giving the name of the author it is not necessary to add that the selections are excellent.

ELEMENTARY PSYCHOLOGY: *With Practical Applications to Education and Conduct of Life, including An Outline of Logic.* By James H. Baker. New York: Ffingham, Maynard & Co. J. D. Williams, Chicago, Western Agent.

In this book the essential principles and topics of Psychology have been selected and treated in such a way as to make them clear and comprehensible, and they are applied in such ways as to fully illustrate their significance. At the end of each subject will be found exercises calculated to test the skill of the student and invite research.

INSTRUCTION IN DRAWING IN PRIMARY AND INTERMEDIATE SCHOOLS IN EUROPE AND AMERICA: *By Dr. Arnold Dodel, Prof. of Botany in the University of Zurich, Switzerland.*

The above is the title of a critical review of the Prang Course in Form-Study and Drawing. It has been translated and put in neat pamphlet form, with a lengthy and suggestive introduction by Louis Prang. The pamphlet will be of interest to any one interested in the subject of which it treats. For a copy or other matters pertaining to drawing, correspond with — Mack, 185 Wabash Avenue, Chicago.

STORIES OF THE THREE AMERICAS; THEIR DISCOVERY AND SETTLEMENT: Chicago: A. Flanagan.

The above book, written by Eunice C. Corbett and Anna Content, is a very attractive little volume, and intended especially for boys and girls. The stories are put into simple language, and the authors are experts in knowing how to write for young people. With the great and growing demand for good reading, this little book should be in great demand.

The same author also publishes a little book on practical gymnastics, entitled *Muscle, Beauty, and Health*. It is fully illustrated, and will certainly be very helpful to any teacher who wishes to teach calisthenics in school, and has never taken lessons himself. Price 65 cts.

WHITE'S SERIES OF ARITHMETIC: *By E. E. White. American Book Co., New York, Cincinnati, and Chicago.*

These books have been revised and adapted to the later demands in arithmetical studies. The present Elementary is a four-year book, and is all that many pupils ever need in their school course. This, with the "Complete," made an admirable course for those who could take time to complete them, but the demand for a shorter course and cheaper books have made a re-writing necessary. The "Complete" retains all its strong features, while the less used parts have been abridged or omitted to make room for an increase of business problems and other practical features. The First Book (recently issued), compressed into a three-years course, but covers the ground fully and completely. It is progressive, logical, and fully up with the best thought on the subject. The name of the author is a guarantee that the books are *first-class*.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

A HIGH SCHOOL TEACHER of eight years' experience desires a position, either as principal or assistant. Good references can be furnished.

Address, Box 503, Richmond, Ind.

THE COLUMBUS NORMAL SCHOOL AND BUSINESS INSTITUTE, with J. E. Polley at its head, maintains a large number of special departments and is steadily gaining ground. See adv. on another page.

WANTED.—Seven reliable men to sell a new and very valuable specialty in school apparatus. Terms liberal. No canvassing for books. None but "pushers" need apply.

Address, O. W. CLOSE, 315 Wabash Avenue, Chicago, Ills.

LESSONS IN GRAMMAR: *By a Successful Teacher.* The whole subject outlined and divided into lessons with plenty of the very best sentences for each recitation. Price, 40 cents, postage prepaid.

C. V. SHEWMAKER, Gen. Ag't.

8-11.

Hillisburg, Ind.

WITH a book, age means success. This is strikingly illustrated in **THE TEACHER'S AND STUDENT'S LIBRARY**, the most successful of all books for teachers, judging by appearances. T. S. Denison, of Chicago, has just brought out a revised edition with price reduced to \$2.50 for twenty-five branches.

INFORMATION FURNISHED FREE.—Do you wish an encyclopedia? New, shop-worn, or second-hand? Do you wish information with reference to any book? If so, write; send stamps for reply if outside of encyclopedia line. I want a few good agents for Johnson's Cyclopaedia. Give references.

8-11.

E. M. CHAPLIN, Lock Box 146, Warsaw, Ind.

G. A. R. AT BOSTON—Reduced Rates via the Pennsylvania Lines.—For the National Encampment G. A. R., to be held at Boston, August 12th to 15th, round trip tickets will be sold via the Pennsylvania Lines on August 8th, 9th and 10th at greatly reduced rates, either via New York and rail lines to Boston, or via New York and steamer through Long Island Sound. Tickets will be good returning until August 20th, inclusive, or by special arrangement return limit can be extended to Sept. 30th.

INDIANA STATE MILITIA—Excursion Rates for the Encampment at South Bend.—For the encampment of the Indiana State Militia (Indiana Legion) at South Bend, August 4th to 9th, excursion tickets at one fare for the round trip will be sold via the Pennsylvania Lines from all stations in Indiana, on August 3d and 4th, good returning until the 10th, inclusive.

THE SOUTHWESTERN LIMITED, via the C. C. C. & St. L. Ry. (Big Four Route), to New York and Boston, is the finest train in America, and provides the best and quickest service ever offered between the East and the West, landing passengers in the heart of New York City without ferry transfer. "The Southwestern Limited" is a solid vestibuled train, heated by steam, lighted by gas, and provided with an elegant dining-car service. 8-11.

ARE YOU LOCATED FOR SEPTEMBER?

If not, send for blank and circulars of the School and College Bureau. We now have first-class vacancies on our books unprovided for, and are sending out 20,000 letters to employers of teachers. These will bring us hundreds of vacancies for July and August. Our vacancies are in all departments of instruction, direct from employers and therefore reliable. Registration fee \$1.00.

8-11

Address,

C. J. ALBERT, Manager, Elmhurst, Ill.

CAPTAIN PAUL BOYTON AT LAKE MAXINKUCKEE.

For Capt. Paul Boyton's unique aquatic show at the lake on August 1, at 2 P. M., the Vandalia Line will make very cheap rates, and also run special trains to accommodate the crowds.

Among the many entertaining features will be a battle between two good-sized, full-rigged ships, one of which will be blown to pieces by a powerful torpedo. There will also be curious water fire-works, rockets, batteries, mortars, bombs and water-devils, and explosions of submarine mine.

A special attraction will be a single scull boat race between the well-known Wallace Ross and John Largon, for a purse of \$500.00.

H. J. McFall, the champion log roller, will give one of his difficult exhibitions.

For full details of the entertainment, apply for a copy of "The Log" to nearest ticket agent of the Vandalia Line, also, for rates and time of special trains.

SUMMER IN THE EAST—Rapid Transit to the Mountains and the Ocean.—The famous resorts of the East are placed within easy and comfortable reach of residents of Indianapolis by THE PENNSYLVANIA SPECIAL, which, leaving the Union Depot at 3 P. M., runs through with Pullman Perfected Safety Vestibule Dining and Sleeping cars, arriving early the next morning at Cresson and Altoona, the key to the Alleghenies. Philadelphia, but a few hours' ride from Atlantic City, Cape May and Long Branch, is reached early in the afternoon, and at four o'clock The Pennsylvania Special arrives in New York where it is the only train making direct connection with the palatial steamers of the Fall River Line for Newport, Fall River and Boston; for Martha's Vineyard and Nantucket; for the resorts of Cape Cod and those farther north. The salt water and salt air of the ocean, the clear atmosphere of the mountains, give delightful vigor to all who court their influence. For a folder containing a perspective map of the country traversed by the Pennsylvania Lines and any other information, apply to

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A WORD FOR YOUNG PEOPLE.

BY CHARITY DYE.

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INTRODUCTORY: Under this heading there will appear several series of articles intended especially for "Young People." The first series will be—"Children in Literature;" other series will be announced as they follow.

The reader is merely introduced to these "Children"; they come to lead him to the books in which he can find out more about them, and to put him on friendly terms with the authors of these books.

Nowadays, when there is so much to read, one is sometimes apt to overlook the great masters of thought and literary style.

[NOTE.—Victor Hugo, the great Frenchman, was born at Besancon, France, in 1802. He died May 22, 1885. He was an artist, a great writer, and a friend of the oppressed. He believed in the meaning of the words Liberty, Fraternity, and Equality. When John Brown was in the Charlestown prison, in 1859, Victor Hugo wrote a letter to the American Republic asking that John Brown be not hanged.

Hugo was banished from his country on account of his political opinions; but he was allowed to return and lived to see his dramas played in the theatres of Paris.

He was a great lover of children and his old age was made happy by the presence of his grand-children. He wrote a book called "The Art of being a Grandpapa," in which his grand-children, George and Jeanne, were hero and heroine. His love extended to all children, and he gave dinners to the poor little boys and girls in Paris. On February 27, 1881, his seventy-ninth birthday, people everywhere wanted to do him honor. Persons were sent from England, Germany, Belgium, and Austria to congratulate him. At ten o'clock on this morning a procession of little girls passed into his house and one of them recited appropriate verses. Hugo kindly embraced her, saying—"In embracing one of you, I embrace all." The pupils of all the schools marched by and Hugo stood on the balcony smiling at them as they passed.

Hugo's works are translated into many languages. It is said that when a young

writer, he shut himself up in a room to prove "What there was in a bottle of ink." When the ink was used up he had created one of his noted works, "Notre Dame De Paris." "Les Miserables," from which the following story is taken, is said to be one of his finest works. It has been called a "Commentary on the four Gospels."]

CHILDREN IN LITERATURE—I.

COSETTE FINDS A FRIEND.

From "Les Miserables," by Victor Hugo.



NOT a star glittered in the sky and the night was in bold contrast to the lighted toy-shops, especially the one in which there stood an enormous doll nearly two feet high. Its eyes were enameled and it was dressed in a pink crape gown with golden wheat ears in its real hair.

All day the passers-by had stopped to admire the doll, but none had felt rich enough to buy it. Late on this dark night, at the bidding of her mistress, Madam Thernardier, Cosette started to the spring, bucket in hand. Though she felt so sad and desolate, she could not refrain as she passed the shop from raising her eyes to the prodigious doll, "The Lady," as she called it. The whole stall seemed to her a palace, and this doll was not a doll but a vision. Joy, splendor, wealth and happiness appeared in radiance to the unhappy little creature who was so deeply buried in mournful and cold wretchedness. Cosette measured with the simple sagacity of childhood the abyss which separated her from this doll. She said to herself that a person must be a queen to have a "thing" like that. She looked at the fine dress, the long smooth hair, and thought, "How happy that doll must be." She could not take her eyes off of this fantastic shop, and the more she looked the more dazzled she became, and she fancied she saw paradise. The other dolls behind the large one appeared to her as fairies and genii. The tradesmen in the shop seemed more than mortal, and in her adoration she forgot everything till the rough voice of her mistress brought her back to reality, and she ran off making enormous strides.

When she had passed beyond all the lights, and into the woods, she was seized with such great fear that she hardly took time to breathe. After filling her bucket in haste, she fell on the grass from exhaustion. She would shut her eyes, then open them again, not knowing why. She counted aloud from one to ten, until her perceptions returned and she

rose. Sobs contracted her throat but she dare not cry. She would carry the bucket and then set it down till she rested. Is it any wonder that in the darkness in the winter woods this lonely child could not help exclaiming, Oh, God! Oh, God! Suddenly the bucket became light, a vigorous hand had seized it. At her side walked the tall black form of a man who was helping to carry her load. Cosette was not afraid of him. She let go of the bucket and the man walked on by her side.

"Is it really very heavy, little one?" said he. "What is your age?"

"Eight years, sir."

"And have you come far with this?"

"From the spring in the wood."

"And how far have you to go?"

"About a quarter of an hour's walk."

The man stopped and suddenly said, "Then you have not a mother?"

"I do not know," the child answered. "I do not think so,—other girls have one; but I have not. I believe that I never had one."

"What is your name?"

"Cosette."

And the stranger drew further particulars from her as to her life and home, and said to her:

"Does Madam Thernardier keep no servant?"

"No, sir."

"Is there no one but you?"

"No, sir—that is to say there are Madam Thernardier's young ladies."

"And what do they do?"

"Oh, they have handsome dolls and things all covered with gold, and they play about and amuse themselves."

"All day?"

"Yes, sir."

"And you?"

"Oh, I work."

"All day?"

"Yes, sir; sometimes when I have finished my work I amuse myself."

"In what way?"

"As I can; they let me be, but I have not many toys. The young ladies do not like to let me play with their dolls, and I have only a little leaden sword, no longer than that." (Holding out her little finger.)

By this time they had reached the village—the man asked:

“Is it fair time?”

“No, sir, it is Christmas.”

When they neared the house Cosette, fearing lest Madam Thernardier would be angry, took the bucket from the stranger. They went into the inn together and the stranger arranged for a night's lodging in the stable.

He sat around the fireside of the Thernardiers that evening, and learned from them that Cosette had been left there over five years before by her mother. They did not tell them that that mother had sent them a great deal of money, which was never used upon Cosette, nor did they know that this mother had first parted with her beautiful hair, and then with her pearly white front teeth, in order to get the money to send them. The stranger knew Cosette's mother; he had left her only a little while before in a dying condition, with the name of Cosette on every breath, and he was seeking Cosette. That this child struggling with her load in the lonely darkness should be Cosette, seemed a strange thing to him.

While the daughters of Madam Thernardier played with beautiful dolls during the evening, Cosette sat under the kitchen table, her accustomed place, dressed her sword and lulled it to sleep.

Noticing that a great commotion was raised by Cosette's touching a doll belonging to one of Madam Thernardier's daughters, the stranger left the room, and in a few minutes appeared with the wonderful shop doll, at which Cosette had gazed so longingly as she went to the spring. He stood the doll up before Cosette and said, “Here, this is for you.” It was a strange sight to see the surprise and emotion on Cosette's face when she learned that the doll was really hers. Her eyes filled like the sky at dawn, with strange rays of joy. She even put out her tongue to an enormous length, and suddenly seizing her doll said, “I will call her Catherine.”

Cosette felt that the man who had carried her heavy bucket through the dark wood, and who had given her the wonderful doll must be a friend indeed, and such he proved himself. He was no other than the wonderful Jean Valjean, the hero of the story of “*Les Misérables*.” Madam Thernardier, upon seeing this stranger, Jean Valjean, able to buy the doll, took him for a rich man in disguise and gave him her best room. When he went to bed he noticed in a corner by itself one of Cosette's homely shoes. It was empty, while the shoes of Madam Ther-

nardier's daughters had in them a coin for the morrow's Christmas gift. Jean Valjean put a bright coin in Cosette's shoe also, and this lonely child wakened Christmas morning to find more happiness than had ever come to her in her eight years of life. To crown her good luck, Jean Valjean put into the hands of Madam Thernardier money to cancel any claim they might have upon Cosette, and being glad to escape the cruelty of Madam Thernadier, Cosette went trustingly forth with Jean Valjean, her new but kind friend.

*COMMON SCHOOL REVENUES.**

A PAPER BY COUNTY SUPERINTENDENT DALE ON THE CHANGE OF
BASIS OF APPORTIONMENT.

It is the writer's desire, in presenting this paper, to set forth facts and figures and draw conclusions therefrom, so that together with what has already been well stated, we may be better able to arrive at some just solution of this question. It is fair to presume that our cities do not desire to enjoy any benefits that do not rightfully belong to them, and the same we assume to be true of our rural districts. That all do not agree on some phases of this question is certain. That some are too biased in judgment or too much circumscribe themselves in vision, to obtain a just estimate of some plain facts, may be found to be true. This paper is not in any sense an answer to any paper presented or statements made heretofore, but if the digression may be pardoned, there is one point or two, set forth by Supt. Hamilton, of Huntington, in a paper before the Northern Indiana Teachers' Association, that in justice to the district schools and their officers, should be corrected. Mr. Hamilton either did not have a correct understanding of the point or misstated for effect; hardly the latter I presume.

Our friends on the other side of the question, in urging their objections to the enrollment method as the basis for apportioning the school fund, insist that when pupils who are absent three days and then dropped from the roll (which method is now in extensive use), are enrolled as new pupils upon entering again, and thus the enrollment doubled in many cases. This certainly would be objectionable were it true that this method of keeping school records is in use. In District No. 3, Noble township, 43

* Read before the County Superintendents' Convention, June 17, 1890.

pupils were enrolled, 46 were dropped and re-entered, but not as new pupils. According to Mr. Hamilton this school had 86 pupils, when in fact the term's report showed 43. This much is due the country teachers and school officers regarding a misleading statement concerning our schools in rural districts.

That our cities under the present plan of apportionment are enabled to reap greater benefits from the school fund, in the way of longer terms and better wages than the country districts, I think all must admit. As to the justice of the present plan and the method for improving it we do not all agree.

Facts are stubborn things, and like Banquo's ghost "will not down." Many statements and statistics which are perfectly reliable, have been given, and for the sake of clearness and as a help in making generalizations, some of these will be given again, as well as some not before given.

The enumeration is on an average about 30 per cent. of the population in the country districts, while in some cities it is 60 per cent. of the population. Why this difference?

The following shows the relation of enrollment to enumeration in various cities and counties:

Ft. Wayne enrolls $39\frac{8}{10}$ of the enumeration; Allen county 59; Perry township, Allen county, 69; New Albany, $40\frac{1}{2}$; Townships in Floyd county, 56; Vincennes, 38; Washington township, Knox county, 65; Knox county, 65.6; Indianapolis, 34; Perry township, Marion county, $65\frac{1}{2}$; Marion county, 57; Evansville, 38; Terre Haute, 35; Linton township, Vigo county, 78; Vigo county, 68; Richmond, $41\frac{7}{8}$; Wayne county townships, $67\frac{1}{2}$; Chester township, Wabash county, 64; Noble township, Wabash county, 75 per cent.

Upon finding the averages of the above in cities and rural districts separately, we find that in the cities the enrollment is 38 per cent. of the enumeration, while in the townships and counties the enrollment is $66\frac{1}{2}$ per cent. (almost double) of the enumeration, which no doubt is something near the per cent. of enumeration that is enrolled in our district and (small) town schools the state over. The above facts indicate one thing plainly: The children attending school in the cities whose enrollment averages 38 per cent. of the enumeration, are enjoying, in addition to those funds they are entitled to reap the benefits of, the funds of $28\frac{1}{4}$

per cent. (the difference between 38 and $66\frac{1}{2}$) of the children enumerated in said cities, but who do not attend school. In other words, for every dollar that any pupil in the above cities is entitled to by the apportionment of our fund, he also derives the benefit of 75 cents, which has been apportioned to said cities by reason of some pupils, his neighbor boys living in the city, but not attending school. Is it fair? Is it right? Is not the boy who attends the district school entitled to his proportion of this money, which is proportioned to those who will not or can not go to school?

In our larger cities there are a great many denominational schools, benevolent schools, and private schools of various kinds, which pupils of these cities attend; there are boys and girls who work in shops and factories, bootblacks, domestics, and those totally indifferent and indolent, who scarcely see one day of school if any at all. These are enumerated and the money apportioned to the cities on the basis of this enumeration. Those who go to school in these cities reap the benefits provided for those who do not go, and the country boy or girl is entirely denied his or her just proportion of benefits which others refuse when provided.

It is not hard to see why it is that our cities and larger towns are enabled to maintain ten months of school, pay higher salaries to their teachers, have better facilities and equipments in the way of laboratories, apparatus and libraries. It can not be said that these things are owing to the special tax levied in these cities. Seventeen of our leading cities and towns levy no special tax at all, and in many other cases it is very light, while in our rural districts the special tax is from 5 to 75 cts. on the \$100 worth of property, and 25 cents to \$1 on each poll, and yet are able to have only about six months of school, lower wages, and the apparatus, books, and appliances are not nearly equal to the cities in quality nor quantity. Here is a comparison of wages:

Fort Wayne, \$3 60; townships of Allen county, \$1.68; Evansville, \$3.30; townships in Vanderburg county, \$2.13; Indianapolis, \$4.58; townships in Marion county, \$2.36; Richmond, \$4.08; townships in Wayne county, \$2.08; Vincennes, \$3.90; townships in Knox county, \$2.05; Terre Haute, \$3.44; townships in Vigo county, \$2.22.

No one who investigates this question carefully can come to any other conclusion than that these great inequalities in wages, length of term, etc., are partially if not largely due to our unequal apportionment of the

fund which arises, in part at least, and perhaps mostly, (because whole-sale fraud is not charged, yet fraud has occurred), from the very low per cent. of those enumerated, that are enrolled or attend school.

This is wrong, and no kind of reasoning in the light of the principles upon which our state government is based can justify it. Our school fund is not equally distributed, and thus the intent of the framers of our constitution is not fulfilled. The spirit, if not the letter of our constitution is violated in this matter. Our constitution says: "It shall be the duty of the general assembly to provide by law, for a general and uniform system of common schools, wherein tuition shall be without charge and and equally open to all." From this language the following deductions are made:

1. The state has control of the education of the children of the state.
2. It has power to regulate the control of schools, provide courses of study, and regulate all matters concerning school funds and their disposition.
3. The property of the state should educate the children of the state.
4. That every child of the state should be afforded equal school privileges, on the principle that all are born with the same inherent rights.

In the State Superintendent's report, 1880, we find this language in the article, "The Development of the Indiana System": "The framers of the new constitution incorporated into the new instrument which they drafted, provisions by which local voluntary systems became impossible, and by the general assembly was required to establish a system of schools based upon these three broad principles: That the schools of the state should be established and supervised by state authority. That every child of the state should be afforded equal school privileges, and that the property of the state should educate the children of the state."

The state then assumes the guardianship of the education of its children. It is clearly the intent of the constitution, which intent is in perfect keeping with our republican government, to provide equal educational benefits as well as equal rights and protection. To secure this our school fund must be equally distributed. At present this is not the case.

A limitation of intelligence is a limitation of citizenship; and ignorance on the part of one is an abridgement of the liberties of others, hence every citizen is benefited by and has an interest in the intelligence of every other

citizen ; therefore comes his obligation and the state's right to tax him to support, in proportion to his wealth, the education of the children of the state. Our friends on the other side of the question have been affirming and reaffirming, with emphasis, in opposition to a change of the basis of apportionment, that some of our cities are already paying into the fund more money than they get back. As a matter of fact we can say that some of our rich country districts are also paying into the fund more than they draw out. "We already pay into the fund more than we get back." We hear this cry on every hand. It is in every paper read by opposing friends. It echoes from every region of the state.

The question of paying in more than they get back is no reason to be for or against a change of basis ; moreover it is not relevant to the question. Our constitution knows nothing of a principle that says that any corporation should or must get back all the funds paid in. From the very nature of the case it must be that rich districts or corporations shall pay into the fund more than they get back. On no other principle could we support a general system of education. What does this "get back all or more than we pay in" argument lead to? What is its meaning?

First, it means a local rather than a general system of schools. It means that Indianapolis is taxed for Indianapolis. Under such a plan our general uniform system would be destroyed, and, in fact, is being destroyed. It violates the spirit, if not the letter of our constitution and our general government. Our government could not exist a day if it were to go on such a principle.

Second, it means a greater, rather than a less difference in length of term, pay of teachers, equipments, apparatus, etc., between country and city.

Third, it may gradually lead to a divorcement of city and country on account of such differences in education, opportunities for culture, commercial and financial advantages.

Fourth, it will necessarily create greater discontent among the rural inhabitants who now complain of injustice and inequality of school privileges.

If we are to be governed by the principle that all that is paid out of pocket should be followed by a like return to the pocket, how shall our government, the people, pay men whose property, money, yea lives, they demanded to support our country in time of peril? When are we

to pay back our people for supporting our benevolent institutions of various kinds, as the blind, deaf and dumb, and insane asylums, orphans' homes and the thousand local charitable institutions? When shall we look to the government to pay for the untold lives lost in defense of our country? How long would it require to pay back our Boys in Blue for their sacrifices; for laying their lives down on the altar of their country that you and I may enjoy liberty and prosperity? Who will pay our mothers for the untold misery over a father's or a son's death in battle, or untold hardships at home, in camp and hospital, to soothe the dying hours of wounded sons, fathers and brothers?

What actuates men and women to give money, property, and life for the support and success of all these things? It is the same principle that obtains in our system of taxing people to support our common schools. The common interests and common good of all, supported by a common and general tax. Incidentally remark that our state might be excused from the expense of collecting and distributing again, a part of our school fund, if we are to "get back all we pay in." But, says some one, under your plan Indianapolis will assist in educating children not living there. Exactly so, and it should be. What! must Indianapolis help educate the children of Hendricks and other counties? Yes, and Hendricks and other counties must help educate the children of Indianapolis. We all pay for one another.

If Indianapolis happens to pay into the fund more than she gets back in return, it only proves that she is more fortunate in point of wealth than other districts, and hence is more able to pay. This is one of the misfortunes, probably, of being rich. This must be so. We can not run a republican form of government on any other plan. Our interests are too closely allied for it to be otherwise. We must have equality of benefits so far as education goes, as well as in other interests, else we shall suffer. Ought not our money to go to support education where people best take advantage of the opportunities offered? Wherever children go to school best let them have as good advantages as others. Where the term is short let us lengthen it. In plain, let the money be distributed where most needed and best used. Educate those well who are willing to receive it. Let us have more money then in our country districts where length of term is short and the per cent. of those enumerated is large.

Another consideration demands our attention. We have in this state 227 incorporated towns. The length of the school term in the most of them is about six months; some, of course, seven and eight, and a few of nine months; also hundreds of township graded schools. In most cases the work done is very efficient and compares very favorably in quality with work done in our high schools. Boys and girls who have completed the course of study in the common branches in our country schools, attend these schools and also township graded schools, of which we have a few hundred, for higher instruction. Tuition debars them from equal advantages in our city and many incorporated town schools.

Our state owes it to these town and township graded schools, at least one in a township, to provide a term and course of study, and more appliances, so that more efficient work may be done and that country boys and girls may have more nearly equal opportunities with city pupils. A more equal distribution of the school fund will go far towards bringing about this desired result. Furthermore, we have outgrown our system for determining the apportionment of our school fund, just as we have outgrown many other things, and it should be changed. This plan was devised in the very beginning of our existence, when our school system was yet to be tried and perfected. Indiana then had no cities; nothing more than towns and villages. Property in town and country was about par, hence the income derived from each was proportionately the same. This condition of things has changed. The wealth has centered in the cities. Property has advanced in value away above that in the country. Wages are much higher in cities; investments yield a much larger dividend. Circumstances make investments more profitable, as a rule. The farmer now, by the most careful management, can realize but about 6 per cent. on his investment. The condition of affairs has changed, and it is against the farmer. He pays higher taxes for schools and has less school term, and pays his teacher less, and must necessarily take poorest qualified teachers as a result. We need a change, that the farmer's boys may enjoy school advantages in every respect equal to the city boy.

What plan shall we adopt? None can be found that will not afford a chance for fraud or wrong if any desire to commit wrong. Let the question of fraud be entirely left out, no matter what has occurred. If we have had fraudulent enumerations in cities, which we know, and not in the country districts, no matter; how shall we determine the apportion-

ment of our school fund? It seems to be conclusive, after consideration, that no fault can be found by taking the average daily attendance, based on full day's attendance for the first six months, as a basis. Under this plan the money goes to those who attend school, and is withheld from those places where the attendance is light in proportion to the enumeration. The money would go where it is needed; none could get more per capita than another under this plan. Let us have a change. Justice and equity demand it.

THE A B C'S OF JESUS—I.

BY HUBERT M. SKINNER.

"Many thanks to old Cadmus, who made us his debtors
By inventing, one day, those capital letters!"

THUS sings the genial Saxe of the alphabet which contained his beloved Psi Upsilon. Ah, those letters of the Greeks—those rounded, curled, and dimpled letters of the earlier world, with their innate suggestions of the grace of childhood, the carol of young voices, the joy of simple hearts! They may have been invented, but they seem to have *grown*, like the stems of flowers and the tendrils of vines.

Most unlike them are the Hebrew letters, upon which rested the eyes of the child Jesus. Firm, fixed, immutable, they seem; fit symbols for recording the inexorable law of the Torah and the words of the Prophets. They are like jewels, cold and polished, strung upon threads or fastened in symmetrical forms upon tablets.

Some such thoughts must have occurred to the royal Psalmist, as he based upon them his task poem, the well known Psalm cxix, containing the oft quoted words,—

"Wherewithal shall a young man cleanse his ways?"

The Hebrew letters were twenty-two in number—four less than those of our own alphabet. For each letter there are eight verses, commencing with the same letter—making one hundred and seventy-six in all, the whole constituting the longest chapter in the Bible. With such a methodical frame work, the psalm was much more easily committed to memory by the youths of Palestine. Probably it was the custom for each student of the sacred writings to appropriate to himself especially the division of the psalm corresponding to the initial of his name. Among the verses

designated by the initial of the name of Jesus is the one which reads,—

“Let them that fear thee turn unto me, and those that have known thy testimonies.”

In our Bible these ancient divisions are all preserved, though the Hebrew letters are not given, but are substituted by their names, which have a quaint and cabalistic appearance.

Psalms xxv, xxxiv, and xxxviii are based on the alphabet, and contain each twenty-two verses—one for each letter. The order, however, has been interfered with in some manner, as there are a few irregularities. Chapters i. to iv. of the Lamentations of Jeremiah are also based on the alphabet, each containing twenty-two verses except the third, which has sixty-six, or three for each letter; and in these chapters there is very little irregularity.

The Hebrew letters of old were treated like veritable jewels. They were fashioned by the scribes with great care. The words and the letters of every volume of the Scripture were counted, with scrupulous exactness, that amid the labor of copying there might be no omissions or interpolations.

The smallest letter of the alphabet was jot, jed, or jod. It may have been the first that the child Jesus recognized. It is the most conspicuous. It is the initial of his name. He refers to it in his sermon on the mount: “For verily I say unto you, Till heaven and earth pass, *one jot* or one tittle shall in no wise pass from the law, till all be fulfilled.”

Another of the Hebrew letters, schin, must have been of special interest to children, as its name tests the ability of the infant tongue to pronounce without lisping. It had the sound of *sh* in *shore*. Children would be apt to render it at first as a simple sibilant. In fact, the entire tribe of the Ephraimites were unable to pronounce it in any other way than as we utter the sound of *s*. Alas for the poor Ephraimite, he was thus effectually prevented from disguising his tribal relation, and the sound of the letter was made a criterion for distinguishing him from the Gileadites. A historical event (related in the book of Judges, Chap. xii) has made this test proverbial throughout the christian world, and given us a word of pregnant meaning. The circumstance is related as follows:

“Then Jephthah gathered together all the men of Gilead, and fought with Ephraim; and the men of Gilead smote Ephraim, because they said, Ye Gileadites are fugitives of Ephraim among the Ephraimites, and among the Manassites. And the Gileadites took the passages of the Jordan be-

fore the Ephraimites: and it was so, that when those Ephraimites which were escaped, said, Let us go over; that the men of Gilead said unto him, Art thou an Ephraimite? If he said, Nay; Then they said unto him, Say now *Shibboleth*: and he said Sibboleth; for he could not frame to pronounce it right. Then they took him and slew him at the passages of Jordan. And there fell at that time of the Ephraimites forty and two thousand."

Milton refers to this tragic event in the lines,—

"Without reprieve, adjudged to death,
For want of well pronouncing Shibboleth."

"Hence," says Webster, in defining the word, "the criterion, test, or watch-word of a party; that which distinguishes one party from another; usually, some peculiarity in things of little importance."

The original meaning of the word which the forty-two thousand fatally failed to pronounce is of no consequence—no more than many of the shibboleths of our day. Probably it meant an ear of grain. Possibly it meant a river.

Both sounds of the letter have come down to us—one in some words, and the other in other words. As these diverse sounds are indicated by marks, there are now practically twenty-three letters in the alphabet—one more than in the time of the Savior.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

RELATION OF FORM-WORK TO OTHER SUBJECTS.

PURPOSE.

FORM-WORK as here viewed, is limited to the study of elementary geometrical forms. In the past, elementary work with geometrical forms has been pursued chiefly for the sake of the knowledge gained concerning the objects studied; and although the work has not been barren of good fruit, the highest results have not accrued from it. A change of opinion is taking place, however, as to the purpose of form-work, and while knowledge gained is still recognized as a factor in the results to be obtained, mental discipline is now conceded to be the highest result arising.

ing from this work. The subject is now seen, also, to be intimately and necessarily related to the other subjects in the school curriculum, and to these relations this discussion is directed.

IMPORTANCE.

This is a subject to which the country schools devote but little attention, and it is given due emphasis in but few city schools. One will be helped in understanding its value by an examination of a small book written by W. W. Speer, in which he discusses the relations of Form to Number. It may be obtained by addressing the writer at Englewood, Ill. Its price is 55 cts.

From forms the mind receives through the senses, impressions; these give rise to perception; and this is followed by thinking and understanding. It is of the highest importance, then, that the child receive his first impressions from forms presenting no inaccuracies,—from ideal forms. Such are the geometrical figures placed before the child in this work. They afford the minimum only of opportunity for careless guess work. Their relations, if mastered, can not be thought as *about* so and so, as must be the relations of most natural objects, they are *just* so. The forms being simple, well defined, and accurate, appeal to the most accurate observation. Close and accurate observation leads to close and accurate thinking, which culminates in right doing. Thus the child may be equipped early with right tendencies in thinking and doing, and herein lies the value of form-work as a means of mind discipline.

RELATION TO DRAWING.

In treating of the relation of this work to other subjects Drawing will be noticed first, because it is more closely related to form-work than is any other subject. Indeed in giving a conception of forms drawing becomes a prominent device.

All drawing deals with points, lines in their relations,—parallel, oblique, perpendicular, etc.,—and with angles; some combinations of these elements entering into the make up of every object, natural or artificial, real or ideal, which becomes the subject of a drawing lesson. All these elements in their various relations are brought prominently before the mind, and a definite conception of them is, or can be given in lessons on form; thus bringing to the study of drawing proper a knowledge of the fundamental elements which the student must use in delineating upon

surface subjects which he sees, or in giving graphic expression to his thoughts.

Again, a knowledge of the geometrical forms is a key to the comprehension of natural forms. The various forms in nature are but modifications of the cube, cylinder, sphere, circle, triangle, etc. Since, then, the delineation of natural forms is quite prominent in drawing work, form work is here, also, quite closely related to it in giving the student a clear conception of the fundamental forms from which natural forms may be developed.

RELATION TO WRITING.

An idea of slant and space are necessary in the study of penmanship, and these may be gained in form-work. In the study of forms here the child is led to see diagonals and other lines of different degrees of slant, and may be led to a definite conception of the diagonal of the oblong three by four, thus giving him a standard of measurement for the slant of his script letters. The student becomes accustomed in this work, also, to making accurate measurements of length, width, etc., thus giving him a clearer conception of distances and enabling him to judge more accurately concerning his spacing in writing.

Many of the letters in script bear some resemblance to forms which the child has mastered in his work on forms, and by associating the letter with the form which resembles it he can retain it better. Thus *o* may be associated with the circle, *a* with the semicircle, etc. Again, the hand, as well as the eye and mind, is trained. In measurements in form-work, in the drawing of the forms, and in the production of forms by means of paper-folding and cutting, and modeling, the hand gains that dexterity which enables it to trace with greater accuracy those forms in penmanship which the eye sees or the mind conceives.

RELATION IN LANGUAGE.

Language grows out of thought. The child must think, else he will have no need of language. And, since his early thoughts are concerning those things which appeal to the senses, it is important that such things be presented to him as will lead to definite, careful thinking, for if the young learner is permitted to engage in indefinite, careless thinking, the tendency to use inaccurate language in expressing his thoughts will be strengthened.

A lesson on any object may be made the basis of a language lesson.

for any object studied elicits thought which calls for language as an expression of it. Those objects, however, which are simple, and which, at the same time, present in their outline lines having well defined relations are best adapted to call forth thought and expression from the child, because they are not beyond his power of comprehension and description. The cube is a better object than the irregular stone from which to develop a language lesson, because the former being more definite in outline than the latter, the learner finds that he can talk about it in more definite terms, and, therefore, becomes more interested in it; and, interest being the basis of attention, he observes the cube more closely, discovers new relations, gains new ideas and seeks to clothe these in language.

Again, every exercise in the production of forms by means of paper-cutting and folding and modeling becomes a valuable exercise in expression, because the pupil, being permitted to make these forms himself, takes more interest in them, sees more in them, has more to tell concerning them. The advantage of form-work as a basis for language-work lies in the fact, that while the forms to be studied are simple they are so definite and accurate in outline that they appeal to the interest of the learner, through this to close observation, wide and accurate thinking, and thus strengthen the tendency to freer and more accurate expression of thought.

RELATION TO NUMBER.

Forms of some kind must be used in early number work, because the child is unable to see the relations in number when dealt with abstractly. Thus the child grasps the idea of one, three, and four, only by seeing these numbers represented by one, three, and four objects respectively. Nor will his conception of three and four be concise unless these ideas are represented by objects uniform in size. For instance, the child is studying the number three. He should first see it as made up of three ones of the same size. If this uniformity in the size of objects used as representatives of numbers is not preserved, definite ideas in number need not be expected; hence geometrical forms are the best material for this work since they may be easily had uniform in size.

Again, the objects studied in form-work present various combinations of points, of lines, of angles, of faces, etc., which are accurate and convenient representatives of many of the numbers dealt with, and of the parts which make such numbers; e. g., the cylinder with its two flat faces represents the number two, and represents it correctly, too, for the

child sees that the flat faces of the cylinder are equal, and thus he sees that two is made up of two equal ones. The child sees in the square four equal lines, the correct representative of the number four. In the same figure he sees four times one side, or four sides; two pairs of opposite, equal lines, or two times two equal lines, which are four equal lines. In like manner he sees in the triangle, cube, and other forms, combinations which represent other numbers, and the parts of which these are composed. The relations of the elements that enter into the outline of these forms present such variety, too, that the child does not tire in using them in the development of ideas in number, and, therefore, does not lag in interest so readily. Thus it is seen that form-work furnishes material for the simple, definite, and accurate representation of the ideas in number, and at the same time gives variety and interest to the work.

If mensuration is to be taught in Arithmetic the pupil's knowledge gained in form-work is of the highest importance to him, for he can not well apply rules of measurement to surfaces and solids unless he has a definite conception of the various surface and solid forms.

RELATION TO GEOMETRY.

In beginning the study of Geometry proper much time and energy must often be wasted in giving the student elementary knowledge of the subject; and often the student finds himself groping blindly from proposition to proposition because he has not a clear conception of the terms and forms to which the propositions refer. This difficulty is obviated by the student who has received proper training in form-work, for there he has studied the various forms and the relations to each other of the parts of forms with which Geometry has to do, and thus comes to his geometry work with a clearer conception of the elements which enter into the subject-matter of that branch of study.

RELATION TO READING.

The relation of form-work to the subject of Reading is not apparent at first thought, but a closer study will reveal some connection between them.

In the first stage of reading the pupil brings into use his knowledge of forms. He sees as symbols of the ideas, words made up of certain characters which he fixes in mind through their association with forms which he knows, just as he fixes the script forms through association with geometrical forms. Later the language lessons developed from forms studied

may be turned into reading lessons. Also, the meaning and pronunciation of the terms gained from this study furnish partial basis for the mastery of some lessons in the Readers.

RELATION TO SPELLING.

In fixing the forms of letters in words in spelling lessons the child goes through the same process and uses the same knowledge that he does in fixing the forms of the letters in writing and reading lessons. Incidentally, also, much spelling is done in the course of study on forms, for the pupil is led to master not only the pronunciation of the terms which he uses in this work, but the spelling as well.

RELATION TO GEOGRAPHY.

In the study of Geography the child's knowledge gained from the study of forms aids him principally in description. He views the earth as a sphere and has brought from form work the ideas and terms to express diameter, circumference, parallel, curved surface, etc. He views the continents and oceans as triangular, oblong, square; he describes islands, gulfs, and bays as circular, semicircular, etc; and, indeed, he compares every geographical element studied with some of the figures which he has mastered in form-work.

RELATION TO NATURAL SCIENCE.

From form-work the student brings to the study of Natural Sciences ideas and terms which he uses in the representation and description of animals and plants, and their parts and organs. In Physiology and Zoology the terms cylindrical, conical, triangular, circular, and the like, are applied to bones, teeth, beaks, muscles, tendons, etc.; and the terms cubical, oblong, spherical, cylindrical, etc., are used in describing cells and other parts.

And in Botany like terms are used in connection with the description and representation of leaves, stems, roots, fruits, seeds, cells, fibres, etc.

T. F.

IT has seemed to me that the highest range of human talent is distinguished, not by the power of doing well any one particular thing, but by the power of doing well any thing which we resolutely determine to do.
—*Francis Wayland.*

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal in Indianapolis Schools.]

ADAPTATION OF METHOD.

EDUCATION is over. It is time, now, for us to begin to think how to adapt our "general idea of method" to our special work. Every teacher should have a well matured plan for each lesson before he attempts to present it to the class. He may need to change this plan during the recitation. He will be the better ready to change by having something in mind to change. But he will not need to change the main features of his plan, if he understands *method*. He must know that in making his plan, he should consider the attributes of the thing to be presented, the "essential characteristics and laws of mind," the present mental condition of the pupils in regard to the point to be presented, and the purpose he has in view.

It is easily seen from the foregoing that a plan for a recitation in beginning fractions with the class we had last year would have to be reconstructed for the class we have this year. No teacher who is continually studying his work with the *four* things just mentioned clearly in mind, can become a rote teacher. He will find great opportunities for his own individuality to show itself. He can not be a mere imitator.

Ask a teacher what he would do *first* if he were giving a class the first lesson in fractions, he would probably say that he would develop the idea of a fraction. He has answered without considering the condition of the class. Suppose this class has in some way while passing through the primary grades learned that a *half* is one of the *two* equal parts into which a thing is divided, a *third* is one of the *three* equal parts, a *fourth* is one of the *four* equal parts, and so on to tenths. But they know very little about the symbol for a fraction. They have called $\frac{1}{2}$ one half but have not seen what the *one* and what the *two* mean.

This teacher would now answer that he would teach the fraction symbol, but to do this he would review the idea of a fraction. Why? To have clearly in mind the attributes that are to help determine the method of presenting the symbol. These pupils, he happens to know, have not been in the habit of calling these *parts*, fractions. They speak of a half and a third, etc., but do not think of them as being alike in any respect.

He, then, in his review plans to have them see that they are all obtained from a *whole* by dividing it into a number of *equal* parts, and that they are called fractions.

He now presents the symbol $\frac{1}{2}$. He asks the class to think how many parts the unit was divided into to obtain one-half. As he asks he divides a slip of paper into two equal parts, and as he wishes to concentrate the mind upon one of them he holds it up in view of the class. (This slip of paper didn't "just happen" to be there. The teacher put it there because he expected to use it. It is to be hoped that no one will say he teaches by the "little slip of paper method.") "How many have I?" "One." Teacher writes figure one on board. Into how many equal parts did I divide the unit? "Two." Teacher writes the figure two beneath the one, drawing a line between them. Questions then follow as to what each term of the symbol shows. Many ingenious questions may here be given by an inventive teacher. We remember one: "Suppose I mean money," said the teacher, "which would you rather have, $\frac{1}{4}$ or $\frac{1}{10}$?" One-fourth came in a chorus. But several said one-tenth. When they were asked why, they said that *ten* is more than *four*. Those who had answered "one-fourth" were anxious to make a reply to that statement. One was given permission to do so. He said, "Yes, *ten* is more than *four*, and the 10 shows how many parts the amount of money was divided into; so it was divided into *more* than *four* parts, and the more parts a thing is divided into the smaller the parts become, so $\frac{1}{4}$ is more than $\frac{1}{10}$ of a thing."

The teacher then proceeded to *tell* the pupils that the figure above the line is called the numerator and the one below called the denominator. They could then readily tell him what each shows. They now have a good foundation for what is to follow—reduction and the four fundamental processes.

Of course it is admitted, that all that has been taught by the above plan might have been *told* in half the time. But the most important purpose in this teacher's mind was to teach these pupils to think. His plan, then, was to lead them to infer all they could and tell as little as he could.

SENTENCES FOR ILLUSTRATION.

EVERY teacher requires pupils to write sentences to illustrate uses of words, definitions, etc. This is right, but insist on the sentences mean-

ing something worth knowing. The teacher asks for five complex sentences and gets such sentences as, "The dog that John saw is William's." Ask the pupils to select them from history, geography, arithmetic, etc. Such as follow might be received:

The English king claimed the land that the Cabots discovered.

The Dutch laid their claim upon the discoveries which had been made by Henry Hudson.

Chicago, which is now the second city of the United States, is in Illinois.

A part of the ocean, that inters into the land, is called a sea, a gulf, or a bay.

Legal interest is the rate which is fixed by law.

GENERAL INFORMATION.

STATISTICS OF THE PUBLIC SCHOOLS AND ILLITERACY.

The Congressional Committee on Education has made a great deal of inquiry as to the practical operation of such schemes as the Blair bill and the propositions embodied in three or four general educational bills now before Congress, and Mr. O'Donnell has at his tongue's end much data which will be read with unusual interest by not only the educators of the country, but all who have an interest in the education of the public. Mr. O'Donnell said:

"The number of school buildings in the United States in use for public schools is 219,063, employing 347,292 teachers, of whom 128,314 are males. The average monthly salaries of the male teachers is \$41.71, and of the female instructors \$34.21.

It is estimated that more than one-fifth of the nation's population is of school age—from six to fourteen years—aggregating 12,000,000 children, of whom 7,800,000 are in daily attendance; about 65 per cent. of those of school age attend daily. The annual expense of the schools of the United States amounts to \$122,455,252. This outlay is provided by revenue from state and local taxation, and permanent funds. Of this large expenditure \$82,314,741 is paid for teachers' salaries, \$19,530,077 for general expenses, and \$21,000,000 for sites, buildings, and libraries. The running expenses of the free-school system of the United States is \$2 per capita for each inhabitant, \$10.60 for each child of school age, \$15.59 for each pupil actually attending school. The value of the property used for public schools is \$287,481,328. If we reckon the interest

on this investment, cost of text-books and material used by the pupils, the total expense of our public schools will be found to aggregate \$153,000,000 annually, about \$2.60 per inhabitant, or quite 2½ cents per day of daily attendance. The expenditures for colleges, denominational and private schools will largely augment the annual educational outlay in this country.

Notwithstanding the generosity of the people in promoting education among the coming men and women of the nation, the last census revealed the unwelcome and alarming fact that there were 5,000,000 inhabitants over ten years of age who could not read, and 6,000,000 of the same age who were unable to write. It is to be feared that this army of ignorance has not diminished during the past decade, and that the number of illiterates has been augmented with the increased population of the nation.

I hold to the patriotic declaration of Justice Harlan that the 'safety of our institutions depends upon the intelligence of the masses.'

Congress has in the past dealt generously in laying the foundation for our school system, the buttress of our civilization. The donations and grants for schools amount to \$67,983,914 acres of land; for universities, 1,082,880 acres; for agricultural colleges, \$4,352,082; deaf and dumb asylums, 44,971 acres, making a total of 73,463,847 acres donated to educational purposes.

The total distribution of cash aggregates \$37,468,859.

The bill on the calendar of the House proposes to distribute among the several states and territories, on the basis of illiteracy, the sum of \$77,000,000, to be paid in different sums during a period of eight years. This aid to education will not oppress the people. Estimating the population of the country at 65,000,000, the total disbursements under this bill will cost each inhabitant the sum of \$1.18. As the population will be larger each year it will be seen the per capita cost will be lessened proportionately.

In the northern section of this country institutions of learning have flourished; the strength of that portion is in its grand system of common schools. In the southern portion of the nation the facilities for education have not been so favorable. The latter states have passed through a fiery ordeal. A quarter of a century since four millions of its inhabitants were raised from servitude to freedom; they and those before them had been in the midnight of ignorance for years; torrents of blood were shed, and from the degradation of bondage they emerged into the sunlight of liberty. Thousands of these were invested with the prerogatives of citizenship, a right demanding education for its basis. The people of that section have

done much to meet the requirements of the new condition, and have broadened the avenues for the seekers after knowledge. Perhaps they might have done more.

The official returns of the late registration in Louisiana exhibits the fact that the voting population of that state is classified 127,129 literate and 127,673 illiterate. Ten years ago there were 10,923 majority in that state of voters who could read their ballots; this year in the voting population there is a preponderance of those voters who can not read the ballot they deposit in the box. In the past ten years the increase of voters shows that of that number 13,274 can read, and twice as many, 24,741 can not. This appalling statement is not to be attributed to racial reasons. The number of white voters unable to read increased 7,835. In that state 'illiteracy is gaining on intelligence.'

Mr. O'Donnell, who is entitled to as much credit as, if not more, than anybody else in the House for the growth of sentiment in favor of the government lending assistance to public schools, believes that some measure constructed on the Blair bill plan, but which does not appropriate so much money, will be promptly passed before long."—*Indianapolis Journal*.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

LIBERTY!!

IT is now one of the fashionable boasts of Superintendents that they permit teachers to use their own methods. How kind this is! What an advance beyond that despotism which controls minutely the formal action of subjects! It is much to boast of when a teacher can use his own free choice as to whether he will stand or sit in the recitation; use a thumb-bell or a pencil in calling a class; or in those more weighty matters, such as using diagrams and outlines in teaching grammar and history! Yes, much; for he is no longer under a despot. But the amusing thing is that, in this age of liberty and personal rights, extending from the Magna Charta to the Declaration of Independence, we should call attention so exultantly to this mere matter of the civil liberty of the teacher, in relation to the superintendent. Certainly, all matters that are individual and personal, according to the Declaration of Independence and the laws of the land, must be left to the free choice of the teacher. It is

a hopeful sign, however, of the stability of our free government that the sovereigns themselves should proclaim the indefeasible rights of the subjects. But let us not forget, even on the Fourth of July, that freedom from despotism may be only the freedom of caprice; and therefore bondage to self,—a change of despots only.

The superintendent having given negative freedom, should next confer positive freedom—the freedom of rational insight into the educative process. It is not bondage but freedom when the superintendent requires the teacher to conduct the teaching process in harmony with the eternal principles of education. Nowhere, except in the mere mechanism of the process, is there choice, belonging to the individual teacher as such. With a particular subject and a particular class, under given conditions, the essential phase of the process must be the same for all teachers; and in this phase there is no choice belonging to the individuality of the teacher. He should choose only what every other teacher should choose. To superintend a school is to see that the teacher conducts his work with rational insight; that he has rational freedom in the process. Despotism is offensive to this age, and caprice freedom is dangerous. Let the new age of freedom be hastened in by the superintendent adopting the principle of holding the teacher to the strictest account as to the rationale of the process. If this be despotism make the most of it. Then let them proclaim from the house tops the freedom conferred.

SIGNIFICANCE OF PHASES IN MIND GROWTH.

THE preceding discussions of the Pedagogy of History have viewed the attributes and relations in the subject as the determining factor. The movement of the mind so determined is the logical one. It is proposed to show how this method is modified in the light of the mind's movement from immaturity to maturity. In the former view, the only question raised concerned itself with the attributes and relations in history itself. Now we must ask: How does the unfolding process of the mind, as it gradually grows in strength and knowledge, modify the logical movement? The answer to this question gives what is called primary method. Before an intelligent answer can be given to this question, we must inquire into the nature and phases of growth through which the mind passes. Viewing this growth as a whole, three stages present themselves. These

may be named the Sense, the Representative, and the Reflective. The basis of this division is found the difference in activity which characterizes each stage. There is a period in the life of every child in which the predominant activity is that of sense. This, of course, covers the first part of childhood. During this time the pupil is absorbed in the sensuous impressions of objects that come under his observation. He is more easily interested in things of sense than in any others. His attention is held by appearances—by the physical. His activities are largely spontaneous. It must be understood, however, that other operations are present in the mind of the pupil during the predominance of the sense phase. It is not meant that the pupil fails to exercise memory, imagination, and judgment; for he does and with great freedom; but that the pupil's judgment and inferences connect themselves mainly with objects present to the senses. Not only is his thinking mainly confined to sense objects, but those attributes which individualize the object rather than those that classify and generalize, attract his attention. If general conclusions are reached, they are superficial rather than fundamental.

The approach of the second or representative phase is gradual and is not marked by any definite age. When the pupil reaches it depends very largely on the amount and kind of experience he has had with the world of sense. In this stage, as its name indicates, the mind is attracted by objects present in memory or created in imagination. So far as imagination is concerned, its pictures are made of material obtained from the senses. An examination of one of these representations will show that it is made up of individual sense objects, and that these objects have all the attributes that belong to sense individuals. They are simply pictured individuals. And although the pupil may make inferences from what he sees in the picture, he is not so much conscious of the inferences made and the relations discovered as he is of the new phase or tinge thus given to the picture. In this way the judgment is made servant to the imagination.

The simpler processes of reflection have been present, more or less, in the first two stages of mind growth, and, as intimated, have aided sense perception and representation in all of their forms. As the circle of experience with sense and representative objects widens, the mind changes the center of its attention and becomes interested in attributes and relations that are abstract rather than concrete, and general rather than indi-

vidual. Here it makes classifications and generalizations that are more fundamental. Sense and representation are still active—may be more active than ever—but the mind has lost its interest in their products as ends, and now regards them as stepping stones to higher forms of knowledge. But the apprenticeship which they have served will now be rewarded a thousand fold; for the vigorous strokes of the reflective powers will react upon, renew, and deepen the impressions of sense, and imagination. For it must be remembered that the highest stretches of generalization must come back to put richer and deeper meaning into the isolated individuals that sense and imagination once struggled with.


A partial appreciation of the facts given above has made great changes, in a few years, in public school work. A deeper insight into this subject has in store still greater transformations. It is along this line of study that we are to find the true basis for a graded school system. It will reveal to us that a grade in a system of school is not a room, nor a number of boys and girls of the same size and age, but that a grade is, in its final analysis, a phase of thought—a phase of mental life in which the amount and kind of knowledge are practically the same. A fuller understanding of what takes place in the spiritual life of the child as it passes from immaturity to maturity will give direction to preparation for teaching in the grades. What we have already seen clearly shows that the teacher of a single grade must be more than a so called specialist in that grade. Such a teacher will be required to see the end from the beginning and the beginning from the end, as well as to see the little field of work she is to direct; this, too, that her little round of work may make intelligent use of the growth and knowledge attained and wield that which she is to give so as to best fit the mind to meet the problems that are in advance. This means that the teacher is to see mind and subjects in their corresponding phases. It is proposed to show these phases in the subject of history.

W. H. M.

COUNTRY SCHOOL DEPARTMENT.

[Conducted by A. N. CREECRAFT, Supt. of Frank'in County.]

GEOGRAPHY.

 FOR BEGINNERS.—While studying the definitions for mountain, hill, isthmus, gulf, river, island, etc., have one child bring a looking glass (as large a one as he can get); another, a box of sand; another,

three or four small stones of different sizes; another, two or three larger ones, though not large enough to crush the glass.

During recitation, place the glass on the floor, and empty the box of sand on it. Ask who can form a continent on the glass, of the sand; or *send* some one to do so. While this is being done, or when it *is* done, ask for a definition and see if all agree that what has been formed on the glass represents a continent; do this after each definition.

Send another to form a bay; another, a mountain or hill, using the stones; another, a creek, pond, cape, and so on until all the forms are definitely fixed in the mind. The glass represents the water. Another day have stones enough to make a mountain chain and system; with the small stones, build up a mountain with an opening in the top, into which insert a piece of paper, lighted, and you have a partial representation of a volcano.

This can be done every day for a week, with profit and interest, and, afterward, occasionally on review. I never have any trouble with these terms afterward.

Some Friday omit the recitation, dismiss a few minutes earlier, and take the class to a grove where there is a creek; having obtained the *consent of the parents first*, of course. Then in the sand along the creek, have them make each form, as they did on the glass; this is instructive and pleasing.

For the second year, let them take a trip (imaginary) to the chief cities of their own state, afterward to other states; they must be back in time for recitation next day to tell all about it; how long it took, what road they took, how many times they changed cars, describe the places, or works of interest visited.

When a trip to different states, give the chief products, occupations, etc., what rivers and mountains, if any, they crossed.

Again, give them each a load of something we raise most of to exchange for a load of the chief products of the state to which they go, telling *why* it *is* the chief product of *that* state and not of others.

At one time, one pupil reported that she was the only one who had returned: the one who went to Greenland froze to death; the one who went to Kansas was eaten up by the grasshoppers; the one who went to Utah joined the Mormons and never came back; the one who started to California was eaten up by a grizzly bear, when crossing the Rocky

Mountains, and so on. They were all very much interested, for each told a different story. Give some historical event connected with each state; some incident of rivers or mountains, which they pass, locating each.

Another time let each one start from the source of a certain river, and sail to the mouth; telling where he started, the important cities passed, the different climates, if any, through which he passed, giving the cause; where he landed, how he reached home, etc.

Again, when time for recitation, tell them to bring slates and pencils; point out on a map in front of them, a river, tell them to write the name; then a mountain, state, lake, isthmus, cape, island, till you give ten or more, if you have time; call on one to spell the name of the river, see how many agree, give ten per cent. to those correct, taking same off for those incorrect.

As they advance, let them take trips to the Old Country—Venice, Paris, Milan, London are excellent places for them to write of, and with the help of the encyclopædia, they get and remember points they would not in any other way; at least I have found it so.

I will give a diagram I have used successfully; let the pupils fill out the blanks.

STATE.	NEW YORK.	VIRGINIA
OCCUPATION. . . .	{ Commerce and Manu facturing.	
PRODUCTS.		Corn, Wheat, etc.
MOUNTAINS.	{ Adirondac and Cats kill.	
MINERALS.		Iron and Salt.
CHIEF RIVER. . . .	Hudson.	
CAPITAL.	Albany.	
CITIES.	New York and Brooklyn.	

To fill out the blanks of five states is a good lesson. When writing imaginary trips, have them *write* it out, but come to recitation without their papers and give it in their own language. "AUNTIE."

ANDERSONVILLE, IND.

HOW TO TEACH LONG DIVISION.

I THINK it is a common practice in teaching long division to begin with small divisors. If it be taught before short division, such divisors

as 2, 3, and 4 are at first used; but if the pupil has been previously taught short division, then 13, 14, and 15 are at first used.

What I would suggest is that in either case large divisors be used. The pupil is to be taught that there are four steps to be taken in the operation, viz: 1, see how many times; 2, multiply; 3, subtract; 4, bring down. To illustrate these steps, take such a number for the divisor as 10236, in which it is to be observed that the left-hand digit is 1, and the digit next to it is 0. With this divisor and any number, as 56878543, for a dividend, any one that is willing to perform the operation will see that the pupil will have no trouble in the first step after he is once instructed how to proceed; and the second and third steps will be a much better practice in multiplication and subtraction than if the divisor were a small number.

And further than this, he will be obliged to dwell long enough on these operations to make a permanent impression on his mind, and hence he will get the routine of the operation quicker than if each step passes in succession as rapidly before the mind as is the case if 2 or 3 be the divisor. After the pupil has become familiar with the operation, let the left-hand digit be changed to 2, 3, and so on, thus approaching the difficulties of the process gradually.—MOSES C. STEVENS, *Pub. Sch. Journal*.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

THE FIRST DAY.

The "first day" in a new school, especially if it be an ungraded school, is the most trying of all the days of the entire school year. It is also the most important. Everything depends upon making a good start. The impression made on the first morning will be a help or a hindrance for many days to come.

The new teacher should make a careful study of his school *before* the first morning. He should know that the school-house is in proper condition, and he should know the advancement of each class in the school, and the names of pupils belonging in each class.

When the school has been called to order, after brief opening exercises, his purpose should be to assign work to each pupil as soon as possible. A teacher's

only safety is in giving employment to the school—a working school will govern itself; an idle school no one can keep in order very long.

Lessons should be assigned at once to each class, without asking questions, and should precede a little the limit reached by the class the last term. Let the assignment be such as to require work—problems in arithmetic are best. Insist that classes shall start as of record, and make any necessary changes later. In this way all former pupils can be disposed of in a few minutes and the teacher can give his attention to new pupils. He should assign these temporarily after a few questions—this is not the time for careful examination.

In this way a large school can be put to work in a very short time, and an ingenious teacher will keep the classes moving and assign new lessons so rapidly that no one will be allowed to become idle for the want of work.

The teacher should be just as exacting in regard to order the first morning as he ever expects to be afterward. Then and there are the time and place to begin. He who “begins easy” expecting to tighten the reins later on when he gets better acquainted, makes a fatal mistake.

If the conditions have been carefully studied and preparation thoroughly made, so that the teacher can show himself master of the situation from the beginning, and that *without asking the pupils questions*, he has then gained the confidence and respect of the pupils and the battle has been won. The impressions the teacher makes this first morning are the most lasting and therefore of the utmost importance.

COUNTY INSTITUTES.

The Institutes for this season are now drawing to a close. Extensive observation on the part of the writer leads him to the conclusion that their general character is improving year by year. It would be very strange were this not true, with all the study and effort in this direction. Each succeeding year the institute becomes less and less of an academic school and more and more a place for the discussion of educational principles and methods. Formerly the general rule was, lessons for the purpose of *giving information* in the various branches of study,—now this is the exception.

The Journal heartily approves this change, but at the same time recognizes the fact that there is danger of going to an extreme in the other direction. There is a possibility of having too much of a good thing. Remembering that in every institute there is a large element of young, inexperienced teachers, there is danger of devoting too much time to the discussion of fundamental principles, and not enough to the formal side of methods and devices. Of course it is better, when the teacher can and will do it, to start with the principle and discover the method and contrive the device as the work progresses, but to large numbers the greatest good will come in beginning with the formal side and finding the *full* explanations later. A great many persons need explicit suggestions, directions, and illustrations in the application of principles.

The manner of conducting institutes is also changing for the better. In most

institutes now the reading of minutes is dispensed with, and the secretary's report is simply submitted to a committee. This saves much time. In many counties where the superintendent is well acquainted he marks his own roll without taking time to call it,—others take time to call only such names as they are in doubt about. If a superintendent knows a teacher is present there is no more use of calling his name than there is for a teacher to call the roll of his school when he knows all his pupils, and knows before beginning the call all the absent members. Under such circumstances roll-call is worse than a waste of time.

In Sullivan, Knox, and a few other counties the roll is called in the morning and each teacher reports the number of exercises he heard of the preceding day. This seems an excellent plan. The order and interest in the institutes as a rule are excellent. In some counties the attendance is prompt and no one thinks of leaving the room without permission from the superintendent any more than a pupil would think of leaving a school-room without permission of the teacher. In others the late coming and the passing in and out during sessions are exceedingly annoying to the instructors. Everything depends upon the superintendent. Some lack governing power just as some teachers lack it.

On the whole the institute of to-day is much in advance of the institute of ten or even five years ago.

THE TROUBLE AT THE NATIONAL.

Several of our contemporaries seem to be greatly troubled over an arbitrary ruling of Pres. Canfield at the late National Association at St. Paul. It arose as follows: The committee to nominate officers consists of one from each state. At the meeting of the committee several members were absent, and most of the absentees were from the North. Among the names presented for president were those of E. C. Hewett of Illinois and W. R. Garrett of Nashville, Tenn., and the contest was between these men. Mr. Hewett had been a leading member of the Association for more than thirty years, and Mr. Garrett had been a member but a few years, and is not regarded as a strong man. His strength came from the fact that he was from the South and his election would have a tendency to interest that section of the country in the Association and thus build up the cause of education in the South. After a full discussion Mr. Garrett was nominated fairly and honorably; but when the report of the committee was presented to the Association several persons considered the nomination for president so unjust, not simply to Mr. Hewett but to hundreds of other older members of more prominence, that they objected to it, and an attempt was made to substitute another name. The secretary was allowed to cast the ballot for the Association notwithstanding the fact that there were negative votes, which is a violation of parliamentary rules.

The next day an attempt was made to set this election aside on account of its illegality, and a resolution was introduced to that effect. Pres. Canfield took the ground that the *spirit* of the constitution had been complied with, and that

owing to the present size of the Association, to vote by ballot, except by the secretary, was impracticable. He also argued that the report of the committee had taken the course it had invariably for the last twenty years, excepting the fact of the few negative votes. He urged further that to now undertake to undo the work of the committee would bring discord and prejudice into the Association and destroy its usefulness. And on these grounds he declared the resolution out of order, and when an appeal was made from the decision of the chair he refused to entertain it. This was certainly arbitrary ruling, but Mr. Canfield justified it on the ground that it was the less of two evils. It certainly would have been better had he recognized the appeal from his decision, as the Association would have sustained him five to one, and the same result would have been reached.

The writer was a member of the nominating committee and did everything in his power to secure a different result, but after the nomination was once made there was only one thing to do, and that was to confirm the report. To have done otherwise would have created a breach that would have taken years to mend.

The President ruled in the interest of harmony and peace and as he thought for the good of the Association, and if he made a mistake he should be excused on this ground. But some of his critics are not willing to excuse him, and are not satisfied to condemn him on the ground upon which his actions were based, but they insist upon attributing to him other and base motives, and they go further and include those who acted with him.

The Journal is thankful that it does not inherit a disposition to attribute improper motives to those who happen to hold opinions differing from its own.

HOW ABOUT IT? Do your boys always, habitually, and respectfully take off their hats or caps when they enter the outside door of the school-house? If they do, and you as their disciplinarian are master of the situation in this one matter so small in itself, you have made a long stride in the continued control of the school. When a boy must, of habit, stop at the school-house door and remove his hat, he has time to think, and does think where he is; and instead of entering with that don't-care air of freedom with which he goes into a barn, he naturally draws a distinction, favorable to the school-house, of course, and enters under a sense of restraint such as he has not known before. The school-room should be made more pleasant and attractive, and the pupils taught to treat it as respectfully as they would a neighbor's parlor. We believe there are some small matters of this kind, that may be considered with quite as much profit as some of the great psychological questions so prevalent these times.

C. M. LEMON.

THE new President of Moore's Hill College, J. H. Martin, expects to emphasize the Normal Department, and to that end has secured strong associates in that line of work.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN JULY.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to the standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

Or, the county superintendent may conduct the examination in these subjects in any manner he may desire.

PHYSIOLOGY.—1. Why do the bones of old people break more easily than those of children?

2. What is food called when it passes into the first intestine? Describe its course thence to the blood.

3. What relation has physiology to hygiene?

4. Name three kinds of joints and describe each.

5. Name the organs essential to the production of speech. Give the structure and function of the larynx.

6. What are the functions of the lymphatic vessels and glands?

7. Define secretion and excretion, and give an example of each.

8. Name the principal sources of impure air in the school-room, and the remedy for the same.

GEOGRAPHY.—1. What are seaports? What are physical conditions contributing to the importance of a seaport? Name five important seaports in the United States and five in Europe.

2. Name the states bordering on the Atlantic Ocean and the Gulf of Mexico. Name those which touch the great lakes. Which state is nearest the center of the United States? Which state is nearest the center of population?

ENGLISH GRAMMAR.—1. From what fact does the participle derive its name?

2. Define a participle.

3. State the use of the participle in each of the following: .

a. The letter, having been written, was mailed.

b. The coat was torn.

c. The horse is running.

4. Write sentences illustrating all substantive uses that clauses have.

5. Analyze: It is a misfortune, not unlike blindness, not to appreciate floral beauty.

6. What is the logical subject of each of the following sentences: .

a. It is wrong to be idle.

b. There he goes.

c. It is pleasant for one to meet friends.

d. Among his favorite pastimes was that of rowing.

7. Expand this sentence so that the thought shall have full expression :

True ease in writing comes from art, not chance.

8. (a) The city where he lived has been destroyed.

(b) I left it where I found it.

Explain the use of *where* in each of the above sentences.

9. What relations may exist between the clauses of a compound sentence?

10. At what age, in your opinion, may the study of technical grammar be profitably begun? (Select eight questions.)

U. S. HISTORY.—I. Treat each of the two Joint High Commissions under the following heads:

1. The occasion of each.
2. The composition of each.
3. The conclusion reached by each.

- II. Give a history of the invention of the telegraph, following this outline:

1. On the land.
 - (a) Who first invented it?
 - (b) What assistance was given him, and by whom?
 - (c) First telegraph line?
 - (d) Spread of the system.
 - (e) Its use in managing railways.
2. Submarine.
 - (a) Who was the leader in the enterprise?
 - (b) Discouragements and failures.
 - (c) Partial successes.
 - (d) Completion and successful operation.
 - (e) Importance to the world.

III. Describe the progress of religious ideas and denominations in the colonies, using this outline:

1. In what colonies was the established religion of England predominant?
2. What special form of belief or religious society was predominant in each colony throughout its existence as a colony?
3. Various forms of religious intolerance in the different colonies.

ARITHMETIC.—1. What is the smallest sum of money for which I could hire workmen for a month, paying either \$16, \$20, \$28, or \$35 apiece?

2. Explain as to a class the effect of multiplying the numerator or dividing the denominator of a fraction by any number.

3. Subtract $\frac{7}{8}$ of $3\frac{3}{4}$ from $\frac{3}{4}$ of $\frac{1}{2}$ of $9\frac{3}{4}$.

4. A load of wood containing exactly one cord is 5 ft. 4 in. wide and 3 ft. 9 in. high; what is its length?

5. A man sold his horse and carriage for \$450, and thereby cleared $\frac{1}{5}$ of his money; what % would he have gained by selling them for \$390?

6. At what rate will \$3,975, in 6 years, 7 months, 20 days, give \$2,375 $06\frac{1}{4}$ interest?

7. The combined salaries of two teachers amounted to \$2,100, and $\frac{2}{3}$ of the salary of the one equaled $\frac{1}{4}$ of the salary of the other, plus \$200; what was the salary of each?

8. Find the square root of .0729.

READING.—“And what is so rare as a day in June?

Then, if ever, come perfect days;
Then heaven tries the earth if it be in tune,
And over it softly her warm ear lays;
Whether we look, or whether we listen,
We hear life murmur, or see it glisten.”

From Lowell's "Vision of Sir Launfal."

1. Ask 10 suitable questions, calculated to bring out the meaning of the above extract. 10 points, five each.

2. Write a brief biography of Lowell and name his most important works.

Mark from 1 to 50.

SCIENCE OF EDUCATION.—Present a daily program for an ordinary country school, or for any grade of a town or city school below the high-school. Let the program show the amount of time given to each lesson and exercise of the day, and the time order of these as fully as the time will allow. State the reasons for giving each subject and exercise the particular place it occupies on the program you make, and the amount of time set apart for it.

ANSWERS TO PRECEDING QUESTIONS.

READING —1. To which of the seasons does June belong?

2. Why is June so beautiful to us?

3. Describe a perfect June day as you have seen it.

4. Explain in your own words the third line.

5. What do you understand by heaven's "warm ear?"

6. Where do we hear "life murmur?"

7. What life is referred to in the last two lines?

8. Who is the author of these lines?

9. What picture is he painting in this verse?

10. What is your favorite month?

James Russell Lowell was born at Cambridge, Mass., February 22, 1819. He graduated from Harvard in 1838 and entered upon the study of law, but never seriously engaged in practice. At the age of twenty-two he published a volume of poems entitled, "A Year's Life." Some of his principal productions are: "The Biglow Papers;" "The Vision of Sir Launfal;" "Fireside Travels;" "Among my Books;" "My Study Windows."

ARITHMETIC.—2. The numerator is the dividend, hence an increase of the dividend will increase the value of the fraction. Again, the denominator is the divisor, and to diminish the divisor increases the quotient.

3. $\frac{3}{4}$ of $\frac{1}{2}$ of $9\frac{3}{4} = 2\frac{1}{2} = 5\frac{1}{2}$. $\frac{7}{8}$ of $3\frac{7}{8} = 3$. $5\frac{1}{2} - 3 = 2\frac{1}{2}$, Ans.
4. $128 \div (5\frac{1}{2} \times 3\frac{3}{4}) = 6\frac{2}{3}$ feet = 6 ft. $4\frac{1}{2}$ in., Ans.
5. $\$450 \div 1.20 = \375 , cost. $\$390 - \$375 = \$15$, gain. $\$15 \div \$375 = .04 = 4\%$, Ans.
6. The interest of $\$3975$ for 6 years, 7 mos., 20 days, at 1% is $\$263.8958\frac{1}{2}$.
 $\$2375.0625 \div \$263.8958\frac{1}{2} = 9\%$, Ans.
7. $\frac{2}{3}$ of A's = $\frac{1}{3}$ of B's + $\$200$.
 Then A's = $\frac{1}{4}$ of B's + $\$300$.
 $\therefore \frac{2}{3}$ of B's + $\$300 = \2100 .
 $\frac{1}{3}$ of B's = $\$200$.
 B's = $\$800$.
 A's = $\$2100 - \$800 = \$1300$. } Ans.

GRAMMAR.—4. As the subject—Who he was, is not known.
 As the object—What are you doing, said he.
 As the predicate—The question is, where is he?
 As an appositive—The question, are we a nation?
 is now answered.

5. A simple declarative sentence. The phrase, "not to appreciate floral beauty," is the subject. *Is* is the copula and *misfortune* is the predicate. *It* is an independent element.

8. (a) *Where* is a conjunctive adverb, modifying *lived*; it has the nature of a relative pronoun, with *city* as its antecedent, and might be parsed as such. (b) Here it is a conjunctive adverb simply, modifying the two verbs.

9. The members of a compound sentence are co-ordinate, or make complete sense when standing alone. They are connected by conjunctions.

HISTORY.—1. In 1871 a joint high commission was appointed to settle the Alabama Claims. (1) The commission was composed of five British and five American statesmen. (2) The commission framed a treaty for the settlement of claims among nations by arbitration.

The second joint high commission was appointed to determine who had been elected to the presidency in 1876. (1) Five members of the House, five members of the Senate, and five Judges of the Supreme Court constituted the commission. (2) The election of Hayes and Wheeler to the presidency and vice-presidency was declared by a vote of 8 to 7.

2. (1) The first successful magnetic telegraph was invented by Prof. S. F. B. Morse. a. He was aided by Congress to the amount of $\$30,000$. b. Between Baltimore and Washington. c. The system spread rapidly over the civilized world in a few years. d. It is used to determine the movement of trains, facilitates shipments and prevents collisions. 2. Cyrus W. Field. a. Mr. Field was much embarrassed by the failure to make a cable of sufficient strength. Five attempts were made before success crowned his efforts. The repeated failures made it difficult to secure capital for the enterprise. b. The first four cables demonstrated the fact that messages could be transmitted under water. c. In 1865 a cable was laid which proved a complete success. This line did

not break, and the transmission of messages from that time filled Mr. Field's highest expectation. *d.* The news is carried with lightning rapidity, commerce has been quickened and stimulated, and the nations have been bound together more closely.

3. (1) The English Church prevailed in Virginia, the Carolinas, and New Jersey. In Georgia and New York there were many dissenters. (2) The Puritan idea was predominant in New Hampshire, Massachusetts, and Connecticut. The Quakers held sway in Pennsylvania. Maryland was ruled by the Catholics. Rhode Island became the foothold of the Baptists. The Scotch Covenanters were strong in New Jersey. Huguenots and other dissenters ruled in North and South Carolina. The Methodists were the leading denomination in Georgia. (3) Massachusetts persecuted persons opposed to the Puritans. The Quakers were particularly despised. In Virginia persons dissenting from the English Church were banished. Connecticut was very rigid in the enforcement of the "Blue Laws," a Puritan system of religious observance.

MISCELLANY.

THE STATE UNIVERSITY has abolished its Preparatory Department and properly so. The high-schools of the state are doing well that grade of work.

THE INDIANA STATE FAIR has expended several thousand dollars in increased premiums and improvements, and in the forthcoming exhibition, commencing September 22, will endeavor to sustain its national reputation. It pays to attend this fair; it is not only interesting but instructive. The railroads will give reduced rates.

THE Grant Co. Institute, held August 11-15, is pronounced by the teachers in attendance and by Supt. Ellis as excellent. While there are only 163 teachers required to fill the schools of the county, 182 were enrolled and the average attendance was 156. All the teachers take the Reading Circle work, and there is also a good interest in the Young People's Reading Circle. Green township gave solid attendance at the Institute throughout the week.

EDINBURG.—The writer spent a part of a day in the Edinburg schools just at the close of the last school year. As examinations were in progress he did not see much regular work, but he was pleased with what he did see. The form work in the lower grades is in excellent shape. But few schools employ so much kindergarten material. W. B. Owen is the superintendent, and will continue the coming year. Edinburg is the place at which the next Southern Indiana Association is to be held.

BOONE CO. had a "School Day" in connection with its County Fair. The exercises were of the nature of a contest for premiums offered by the fair directors. The contestants were all graduates from the district schools for 1890. Each township first held a contest and the victors there were the contestants at

the county tournament. The crowd was large and everything went off in good shape. Delegations with bands, banners, flags, and big wagons was the order of the day. S. N. Cragun is the county superintendent.

THE JACKSON CO. Institute, held Aug. 11 to 15 inclusive, was both interesting and profitable. Teachers enrolled 157. The instructors, E. F. Sutherland, former Pres. of S. I. Normal College, and Supt. P. P. Stultz and Miss Sadie L. Montgomery, of the Jeffersonville schools, did excellent work. Profs. Stultz and Sutherland, and Dr. T. Harrison, of Shelbyville, each gave evening lectures of high merit. Excellent music was furnished throughout the week, and the institute was ably conducted by Co. Supt. Wesley B. Black.

CENTRAL NORMAL SCHOOL at Danville is in a healthy condition. The total enrollment for the past year was about 1200. At the last commencement it graduated 49 from its teachers' course, 27 from its scientific course, and 10 from its classical course. The writer attended the exercises of the classical graduates and they were very creditable indeed.

For the coming year the faculty will be reorganized and slightly changed. J. A. Joseph becomes president and C. A. Hargrave will give his entire time to the work of instruction. Jonathan Rigdon resigns his position and O. P. Lee takes his place. The prospects for the coming year are reported as very flattering indeed.

NOTES FROM ABROAD.

HUNGARY.—In Siebenbürgen, a crown land of Hungary, inhabited by Germans of Saxon stock, a motion to admit women to the profession of teaching was defeated in the Synode with overwhelming majority. The schools are under the management of the clergy.

BELGIUM.—On the 9th of October an international congress will assemble in Antwerp to consider the question, How best to treat vagrant children and discharged prisoners. The Belgian government has appropriated 8,000 francs for this congress, which will be presided over by the Belgian Minister of Justice.

ARGENTINE.—In San Louis, Santa Fé, Catamarca, Rioja, in fact, in all the provinces of the Argentine Republic, complaint is raised by the teachers, that their salaries are not paid. The professors of the State College at Mercedes have refused to continue in their work and have left for Buenos Ayres. In the light of recent events in Argentine the prophecy that money will not be forthcoming soon, is justified.

SAXONY.—Authentic reports of recent date contain some interesting points concerning the schools in Saxony in 1889. There were 4251 elementary schools, of which 4139 were public. The sum total of pupils in these lower schools was 664,640, of whom 578,749 were in the public schools. In 53% of the schools both sexes were taught together; 22% were boys' schools, 27% girls' schools. Of all the 664,640 pupils 85% were in graded schools of at least four grades. The average number of pupils to the teacher was 47 in the lower grades, 40 in

the middle grades, and 26 in the higher grades. While this would seem very commendable, the other fact that 1326 school-rooms, or 10 3%, were still overcrowded, must be stated also.

PERSONAL.

- E. E. Taylor rules at Sunman.
F. M. Laws is the principal at Milan.
W. S. Almond is still the hero at Salem.
F. M. Stalker remains in charge at Bedford.
B. F. Jackson is the man in charge at Versailles.
S. A. D. Harry will remain in charge at Covington.
J. F. Haines will continue in charge at Noblesville.
Edward Taylor is still to have charge at Vincennes.
W. R. Nesbit will remain superintendent at Sullivan.
J. C. Weir will continue as superintendent at New Castle.
J. B. Fagan, of Mt. Ayr, goes to Morocco the coming year.
H. W. Bowers has been elected for a fourth year at Portland.
Philmer Day will continue to teach in the Vincennes schools.
D. W. Thomas continues at Elkhart. That's a fashion he has.
S. E. Raines will continue principal of the high-school at Sullivan.
J. S. Gifford, of the State University, will take the Carlisle schools.
J. M. Calahan will have charge of the Hope schools the coming year.
Grace Woodburn is the principal of the high-school at Bloomington.
I. N. Harlan will have charge of the Haughville schools the coming year.
Will. P. Hart, formerly of Danville, is elected for a second year at Osgood.
V. E. Lewark will have charge of the schools at Glenwood the coming year.
E. A. Bryan still continues to preside over the interests of Vincennes University.
J. A. Mitchell resigns at Arcadia to accept the associate principalship at Noblesville.
H. J. Shafer, formerly Supt. at Attica, will be in charge at Danville the coming year.
M. J. Mallery, of Crown Point, goes to Ironton, O., next year, with a salary of \$1700.
E. M. Teeple, of Butler, will succeed Geo. A. Powles at Argos for the year 1890-'91.
H. W. Monical, a State Normal graduate, is principal of the high-school at Princeton.

F. J. Lahr, of Huntington county, is the new principal of the high-school at Shelbyville.

John A. Wood returns to Frankfort as principal of the high-school, with \$100 increase in salary.

W. H. Cain, who had charge at Carlisle for many years, will teach the coming year in the Sullivan schools.

C. L. Van Cleve, Supt. of the schools of Troy, O., did work in the Jay Co. Institute that was highly appreciated.

R. G. Boone, Prof. of Pedagogy in the State University, has had his salary advanced to \$2000. Served him right.

F. N. Sackett, formerly of Indiana, has been elected to take charge of the schools of Easton, Ill., at an advanced salary.

Miss A. Kate Huron still continues her connection with the Central Normal College at Danville, and is one of its elements of strength.

R. P. Lamb, of Cross Plains, has served as agent for the Journal in Ripley county for the past fifteen years, and always does good work.

J. K. Beck, for years past principal of the Preparatory Department of the State University, has been given a chair of Latin in the University.

I. L. Whitehead, Supt. of Perry county, was married August 21, to Miss Minnie Friedl. The Journal extends congratulations and best wishes.

P. H. Bolinger, of North Manchester, will have charge of the schools at Liberty Mills the coming year. His wife will teach in the Intermediate Department.

Mrs. Emma Mont. McRae, of Purdue University, has enjoyed (?) such poor health recently, that she has been compelled to cancel most of her institute engagements.

A. N. Crecraft, Supt. of the Franklin county schools, has been sick for some months, and not able to do his work. It is to be hoped that he will soon be himself again.

W. H. Hoffman, who was for three years Prin. of the high-school at Washington, and for the last five years has been Supt., stays another year at an increased salary.

J. F. Compton, of Perrysville, formerly Supt. of Vermillion county, but for many years engaged in business, still retains his interest in everything pertaining to education.

David H. Ellison, ex-county superintendent of Lawrence Co., has the nomination on the Democratic ticket for State Senator, and is likely to be elected. He is a good man.

W. J. Button, formerly an Indiana teacher, but for many years past located at Chicago in charge of Harper & Bros.' school-book interests in the West, developed marked ability as an organizer and manager. When the Harpers sold their common school-books to The American School-Book Co. it was thought

that Mr. Button would be at liberty, and he received several flattering business offers, but he has decided to stay with his old house, and push their high-school and college text-books, his complimentary salary remaining as of old.

D. G. Fenton has been re-elected superintendent of the Vernon schools. Misses Mary Collett, Lizzie Henchman, and Anna Carney have been re-elected in the same schools.

Prof. Earl Barnes, of the State University, has been granted a year's absence, which he asks in order to pursue still further his historical studies. He will spend most of his time at Cornell.

A. N. Higgins, principal of the Waynetown schools, has the Democratic nomination for the Legislature from Montgomery county, and is likely to be elected. He will make a good representative.

J. A. Woodburn, after two years of study in Johns Hopkins, will resume his work in the State University. His ability as an institute instructor is remembered and his services will be in demand in the future.

O. T. Dunagan, of Center Point, and Miss Lola Moss, of Brazil, will go to Sacaton, Arizona, the coming year. Mr. Dunagan will have charge of the Pima Indian schools and Miss Moss will teach in the same.

C. A. Hargrave, who for the past year has been Pres. of the Central Normal at Danville, has for some time been in poor health. The coming year he will devote himself entirely to class-room work.

Robt. L. Kelly, Supt. of Monrovia schools, will go to Adrian, Michigan, the coming year, to take charge of Raisin Valley Seminary. He takes with him Miss Cecilia Ritner, of Bloomingdale, who changes her name with her place of abode.

T. B. Frazee graduated from the State Normal in June, was married to Miss Alethea Caffee, a teacher in the Sullivan schools, August 6, has been elected principal of the Third Ward school in Frankfort, and will take charge in Sept. This is making history rapidly.

S. H. Albro, of Fredonia, N. Y., did highly acceptable work in the Wabash county Institute. The State of New York employs four state institute instructors and all institutes are held during the school year. Prof. Albro is one of these four men. He certainly understands his business.

G. G. Manning has been elected for a *twentieth* year at Peru. W. H. Wiley, of Terre Haute, is the only superintendent left in the state who outranks Mr. Manning in length of service. As Mr. Manning owns a good farm of 320 acres he is not likely to starve if he should some day lose his place.

M. W. Harrison, Supt. of the Wabash schools, was recently offered a larger salary to take the schools of another city. When he asked his board to release him he received, "Your services are worth as much to Wabash as they are to any other place." So he stays with a handsome increase of salary.

A. H. Graham, for so many years in charge of the schools at Columbus, as heretofore stated has removed to Rushville, and will open there Sept. 5, "The

Rushville Academy." The school will sustain several departments, prominent among which are: Teachers', Musical, Art, Commercial, etc. Prof. Graham is one of the most genial gentlemen in the state, and his popularity will certainly bring together a large school.

Temple H. Dunn, for several years past Supt. of the Crawfordsville schools, after having been re-elected for another year, resigned his position and will retire from the profession. Mr. Duan ranks among Indiana's best Supts., and it is to be regretted that the state must lose his services as an educator.

Jonathan Rigdon, for many years past a member of the faculty in the Central Normal at Danville, has resigned his position and will spend the coming year in Boston University studying philosophy under the celebrated Borden P. Brown. Prof. Rigdon has just published a new English Grammar and is moving on toward the front rank of Indiana educators.

E. C. Hewett, late president of the Illinois Normal School, was not correctly reported in the "personal" last month. He had been connected with the normal thirty-two, and had served as Pres. for fourteen-and-a-half years. Having been continuously in the teacher's harness for more than thirty-eight years, he simply steps aside for a little rest. He will soon be ready for institute and lecture calls.

BOOK TABLE.

SCHOOL AND HOME is a paper published in St. Louis designed for pupils, teachers, and parents. It contains matter adapted to different grades and much of it will serve well for supplementary reading. It is issued twice each month at \$1.50 a year.

THE history of the decimal system of currency, weights, and measures—and incidentally that of the weights and measures in more common use in this country—is the subject of an interesting article by H. W. Richardson, to appear in HARPER'S MAGAZINE for September.

THE SEPTEMBER CENTURY devotes considerable space to California. John Muir furnishes an article on the proposed Yosemite Park, which is illustrated. The Anglomaniacs is concluded. The present-day papers discusses the social problem of Church Unity. Altogether it is an interesting and profitable number of a very interesting and profitable magazine.

THE LITERARY DIGEST, published by Funk & Wagnalls, New York, \$3.00 per annum, reviews all the interesting questions of the day. It contains *reprints* from the leading periodicals, and comes every week. No. 15, dated August 2, discusses the Federal Election bill, the Copy-right bill, Hypnotism, etc. It can not fail to be of great assistance to persons wishing to keep abreast with the times and who have only limited time to devote to reading and study.

TWO VALUABLE educational papers will be found in the September number of the NEW ENGLAND MAGAZINE. Rev. P. H. Kasson has an article on Mark

Hopkins, accompanied by a new and striking portrait engraving, and Charles Morton Strahan gives an interesting account of the University of Georgia, which is freely illustrated. It will be remembered that the University of Georgia is famous all through the South because of the noted men who have left its doors, among their number being the late Henry W. Grady.

A TIMELY SERIES of papers on South America will be begun in the September number of HARPER'S MAGAZINE. These papers will be written by Theodore Child, who will relate his personal experiences and observations in the Argentine Republic, Chili, Peru, and Brazil during the first six months of the present year. They will be fully illustrated from photographs and drawings; and it is believed that they will be the most valuable and accurate series of articles on the contemporary social and economic life of the South American people yet published.

PEDAGOGICAL PRIMERS—NO. I: *Published by C. W. Bardeen, Syracuse, New York.*

This No. I primer is devoted to school management. It considers school management under three heads; Organization, Government, and Conduct of Recitations,—and under each head makes many helpful suggestions to the inexperienced teacher. As its name indicates it is a small book, inexpensive, but worth ten times its value to the beginner who ponders its matter, and adapts to himself its aids.

A PRIMER OF DARWINISM AND ORGANIC EVOLUTION: *By J. Y. Bergen, Jr., and Fanny D. Bergen. Boston: Lee & Shepard.*

Those persons who have not time to enter upon the study of the theory of evolution as explained in the voluminous works of Darwin and Huxley, will find in this little book the cardinal principles of this science. It is a new edition of a former work by the same author giving a narrative summary of the principles of the development theory. This new edition is not technical, it is not complicated, but sets forth the theory easily within the comprehension of the average high-school pupil.

PRESTON PAPERS: *By Miss Preston's Assistant. Published by the Lawyers' Co-operative Publishing Co., Rochester, N. Y.*

Miss Preston is an *ideal* teacher. Her theories have common-sense on their side, and her practice, as portrayed by her assistant in these pages, is worth studying and adopting. The book is full of helpful suggestions to teachers in both country and city. Like *Evolution of Dodd* it is written in story-form, and while it good-naturedly satirizes many common practices, it shows a *better* way and is altogether a very readable book.

LOGARITHMIC TABLES: *By George William Jones. Dudley & Finch, Ithaca, New York.*

This book contains 6 tables, specially adapted for use in class-room or laboratory. The arrangement of the tables is new and is such that an angle, its natural and logarithmic functions are side by side on one page. The page is

large, the type clear, and in such variety that a number may be easily and quickly found. Strong heavy paper is used, and the book so bound that it will lie open at any page. Large 8vo., 72 pp., 50 cts.; to teachers for examination, 25 cents.

THE ESSENTIALS OF METHOD: *By Charles De Garmo, Ph. D., Professor of Modern Languages in the Illinois State Normal University. Boston: D. C. Heath & Co.*

The author states in his preface that there is a method in the child, and a method in the subject, and that a complete method of pedagogy would fit the method of the subject to a corresponding stage of development in the child. It is the object of this little book to deal with this adjustment of subject matter to mind—to seek to find the essential forms of methods of instruction as determined by the general law of development in the mind of the child,—and it attempts this through an analysis of the mental activities involved in knowing.

EXERCISES IN LATIN COMPOSITION: *By M. Grant Daniell, A. M., Principal of Chauncy Hall School, Boston. Published by Leach, Shewell and Sanborn, New York.*

Parts I and II of these exercises are bound in one volume. Part I is based upon Cæsar's Gallic War. Part II is based upon Cicero's orations *against* Catiline and *for* the poet Archias. This book is prepared in the belief that Latin composition can best be taught in connection with the reading of the Latin authors, and contemplates daily exercises in composition based upon the day's text. Oral and written exercises accompany each chapter; the text furnishing the vocabulary, the models for idioms, and the order and arrangement of words. References are to Harkness, Allen and Greenough, and Gildersleeve. The writer has practiced this method for years, and his experience has demonstrated that it is productive of excellent results.

PESTALOZZI, HIS LIFE AND WORK: *By Roger De Guimps. Translated from the French by J. Russell, B. A., Assistant Master in University College School, London. New York: D. Appleton & Co.*

This book is Vol XIV in the International Education Series, edited by Wm. T. Harris. The whole civilized world is interested in the life of this man, the first teacher to announce convincingly the doctrine that *all men* should be educated. Born in Switzerland in 1746, and dying in 1827, he lived a long life, which he devoted to the work of education. He chose to cast his lot with the humble and poor, and studied with great self-sacrifice the hardships and drawbacks attending poverty, that he might be the better able to alleviate them. He publicly proclaimed that through education alone men are made self-helpful, and so boldly did he proclaim this truth that he convinced all Europe. Public education has become state policy not only in monarchical Europe but in republican America it is considered one of the safe-guards. The author, Roger De Guimps, was for nine years a pupil of Pestalozzi, and therefore he writes of what he knows. The book is one of great interest.

GRAMMAR OF THE ENGLISH SENTENCE, AND INTRODUCTION TO COMPOSITION:
By Jonathan Rigdon, A. B. Danville, Ind.: The Indiana Publishing Company.

The writer of this book claims no advantage on the score of originality. His only claim towards recognition is that fifteen years spent in the study of the subject and in teaching it to classes of all grades of advancement *ought* to result in an experience useful to the student and teacher of grammar. Mr. Rigdon advocates the use of diagrams in the analysis of sentences, fortifying his position with the well known psychological principle that the mind is more deeply and more clearly impressed when reached through any two of the senses than when reached through either of them alone. The diagram appeals to the eye of the body as well as to the mental sight.

About thirty-five pages at the close of the book are devoted to the art of composition. Suggestions in regard to letter-writing, plans and titles for essays, figurative language and rhetorical criticism receive such attention as the space permits. The writer gives this good advice to the student striving with his essay: "Do not sit down and lazily wait to be inspired. The angel of inspiration never hovers over an indolent mind."

The book is eminently suggestive and will be an aid to careful, thoughtful students of language.

IN DARKEST AFRICA: *By Henry M. Stanley. New York: Chas. Scribner's Sons.*

After a perusal of Stanley's new book, "In Darkest Africa," we know not which to admire most, the physical endurance that enabled Mr. Stanley to spend three years in penetrating the heart of the black continent, fording rivers, making his way through trackless swamps, harassed by the savage natives, with a following of aged men, women, and children, with food so scanty that at times the company was reduced almost to starvation; or the mental power that enabled him to sum up in fifty days the experience of the three years, and give it to the whole world at the *same* time, for this book appeared in all the civilized languages of the world simultaneously. Truly, it is the history of the thrilling experience of a brave hero, wonderfully well told.

Stanley's expedition was undertaken not for the mere love of adventure, not for the discovery of so mythical a thing as a northwest passage, but in the interest of humanity, for the rescue of Emin Pasha and his followers. In the furtherance of his purpose Stanley has opened up Africa and made valuable additions to science and geography. The chief value of this book, as well as its chief attraction, must be the moral element—the unselfish devotion in the pursuit of a noble end,—the rescue of Emin and his men.

In mechanical execution, the book is admirable. Paper, print, and illustrations are all of the finest, and the publishers have spared no pains in binding and finish. It is sold only by subscription. Jesse B. Thomas, Indianapolis, is state agent for Indiana.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

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THE RECITATION.

J. E. MCCARTNEY, BRISTOL, IND.

LL, I believe, will agree with me, that the method of conducting a recitation is of the highest importance, inasmuch as it is more important for us to *digest* what we have learned, than merely to *acquire* it. It is the most delicate part of all school work, and comprises what is usually termed *aptness to teach*. Here our skill, tact, individuality, and inventive powers may be taxed to the utmost. We must not forget that the aim of the recitation is not knowledge simply, but mental *discipline*, POWER.

Pupils carry away with them the habits of mind that the class training engenders. True, education is the forming for life of correct habits of thinking, feeling, and doing,—in short is to *fit one for usefulness*. Therefore the method or combination of methods, which will best bring about this result is most desirable.

In the use of the catechetic or question method we find that not only is *thoroughness* prominent, but in development work the suggestive questions *excite the pupil's curiosity, awaken his mind*, and easily hold his ATTENTION,—the first requisite of a successful recitation.

As a means of developing the observation of young children, it is indispensable; for they have read little, and therefore have few ideas. It also gives the teacher complete control of the youthful minds that lie fallow before him, and enables him to present the subject in a logical

manner, while it opens a field of *enthusiasm* in teaching and learning, and gives life to what might else be worn and worthless machinery.

By questioning the pupils, the teacher encourages them to present their own thoughts, and if correct he may deepen and broaden their views by suggestive illustrations, thus imparting incidental instruction and clinching, so to speak, the truths grasped by the pupils.

On the other hand, if the pupil's views are incorrect, he can be shown the absurdity of them by being led to discover their consequences. Just in proportion as he is taught to think and to take upon himself the burden of research, will he feel the joy of discovery and victory, and the results will be *development, GROWTH, EDUCATION.*

Now as the most beautiful rose has its thorns, so here we find that we are in danger of wounding our fingers while appropriating this rose to our own use. Chief among these thorns, and close to the blossom is that of attempting too much. It is so easy for us to develop subjects without considering that the subject matter must be assimilated, digested, as it were, and thus cause the pupils to make the mistake that many of us do on Thanksgiving and Christmas,—eat too much simply because it is so good, and the result may be *mental dyspepsia.*

Another danger is that we may not be careful to ask our questions in such a way as to cultivate expression.

Again, as the pupils present their own thoughts, there is danger that the teacher may switch off on a side track, so to speak, and lose sight of the real subject under discussion, or at least depart from the logical analysis of the theme.

Thus far I have spoken only of the dangers surrounding development work. In the olden times it was the fashion for the teacher to hold the book in his hand and with one finger on the question, would *first call on John*, then *read the question*; then his eyes would seek the printed answer, or if it happened to be a map question, would go in a wild-goose chase in a vain search for the correct place.

Of course no one does that now, and certainly none of the readers of this article. I simply mention this because I have had teachers who never thought of hearing recitations without a book in their hands, and I often wondered what was the use of my studying what my teachers did not know.

The *purpose* of questions may be imperfectly summed up as: (1) To

find out what a pupil knows by way of preparing him for some further instruction. (2) To awaken curiosity and secure the activity of his mind and his co-operation, while in the act of teaching him. (3) To discover his misconceptions and difficulties. (4) To illustrate, to explain when necessary, and thus impart knowledge not found in the text-book. (5) To fix knowledge in the mind and thus secure thoroughness. (6) As a test of the result and outcome of our teaching.

So by questioning not only do we have the means of discovering what is known, but the questions themselves are prime instruments in imparting knowledge.

We need not only the *dynamic power* but the *guiding sensation* to tell us what we are doing. If a man is deaf he soon becomes dumb; unless he can hear himself, he ceases to know how to talk and soon leaves off caring to talk. So as we go on giving a lesson, we are completely in the dark, unless by means of constant questioning, we keep ourselves with our pupils and know exactly whether, and how far, they are following us. The master of this art, the world renowned Socrates, by his *searching questions*, has shown us that questions will measure the deficiency which we must supply, and by awakening sympathy and interest show the pupil what he has to learn.

We will next consider some of the tests of a good question. The *first* is that it should be perfectly clear and in simple language, also in as few words as possible. Not long ago this question was asked in a Physical Geography class: "Where do you expect to find lakes? For instance, you know the difference between a chain of mountains and a group, don't you? Well, you know the water comes down the side of a mountain, and must go somewhere. What is a lake?"

Now here are four sentences and three different questions in this one question. This man (for it was a man teacher) knew what he wanted, but in order to help the class he put in explanations and ended by a totally different question from that with which he began. Of course the pupils were bewildered and puzzled, and of course they did not know what to say, so more questions of a similar nature followed, and the recitation was a practical failure. Now if he had shown a drawing of a chain of mountains, and then asked them to tell him what became of the streams that rolled down into a plain, he would have developed a good, general notion of the course of rivers as determined by a watershed. Then he

should have asked what would have happened if the mountains were not in a chain, but in a group, so that when the water rolled down one side it could not get away, but was stopped by another mountain. What became of the water? Ans. It must stop in the valleys. Ques. And when the water remains in the valley, what do we call it? Ans. A lake. Ques. Now tell me what a lake is? How do you expect to find the mountains arranged in a lake country? In a group or in a range. Why? Each question should be one. I have not space to illustrate the different points in questioning.

The teacher should avoid the stereotyped expression, "Can any one tell me?" etc.; also those questions that give a choice of two answers, and questions that admit of "yes" or "no" for an answer, for beside fostering a habit of guessing on the part of the pupil, they are detrimental to the cultivation of expression, one of the things that should not be lost sight of in a recitation.

Again, the teacher should not call on the pupil until after the question has been clearly stated, thereby holding each member of the class responsible for its answer; and above all the continuity or logical arrangement of questions should ever be borne in mind.

Let us consider the manner in which lawyers employ the art of questioning. We read the evidence given at a trial and marvel at the clearness of the story, especially when given by an ignorant witness under the excitement of publicity. The fact is no such story was given. The lawyer drew fact after fact by a series of questions, and we read the answers only, and this marvel is due to the skill of the lawyer who knew exactly what he wanted, and in what order the facts should be arranged. Can we not learn a lesson from this? How many of us stop to think how the answers of the pupils in a development lesson, or even the questions of a reading lesson would look if taken by a reporter and printed in full? Would they be *orderly*? Would they be *readable*? Would they cover the *whole ground* and make a *complete summary* of what has been learned? Unless our questions stand this test we have yet something to learn and can study it daily.

No permanent results can be attained in teaching without *thorough*, *careful*, and *repeated* reproductions of lessons. It is here that the topical method can be used to advantage.

No question should be asked by the teacher, and if the work has been

done as it should be in the preceding exercises there will be no need of any. In primary classes *oral* and in advanced classes *written* reproductions should be used.

Prompting in all its forms should be avoided. The aim is to train the pupils to habits of independent expression as well as independent thought. Another form which this method assumes is to view a subject from different standpoints. Briefly and pointedly the pupils present their arguments in favor of their respective positions. The subject is carefully analyzed and systematically arranged by the pupils and their utmost power put forth. I know of no better way to cultivate independence, self-assertion, liberality, and the habit of treating an opponent courteously and fairly. It breaks up monotony and does away with stupidity. Of course the teacher must direct and control this.

Again, by the topical method there is less examining, less artificial training, and more solid development. It is undoubtedly pre eminent in making *thinking men* and *thinking women*. It may also be used to stimulate the pupil to research, finding out from all available sources, facts bearing upon his topic, and to arrange these, forming as it were a skeleton, which he can clothe in the flesh of his own language, thus giving him an excellent preparation for writing or speaking. History affords one of the best examples for the use of this method.

Like all good things, this too can be abused, for while some are reciting on their topic others may be looking up their topic, and thus *attention*, the first and prime requisite of the recitation, be lost. Again, if not supplemented by questions, the pupil may recite in the language of others without appropriating to himself the thought.

Now, the art of connected discourse is essential. Therefore by our best teachers the topical method is made the *basis* of the recitation, and should be required whenever the subject will admit of it. But the *exclusive* use of the *topical method* is an extreme which we must avoid or it will exclude instruction, and fail to gain that intense interest and earnest effort which is so desirable in each member of the class.

On the other hand, by combining the questioning method with this and asking pointed, searching questions, whenever necessary, we secure that life, rigor, undivided attention and effective individual effort which is so indispensable to success.

In conclusion let me *repeat*, that the discipline of the mind is the great

thing in intellectual training, and the question is *not how much have the pupils acquired, but how have their powers been strengthened by the acquisition?* The *principles* underlying this are *adaptation* and *variety*, with the motto, "Put yourself in the pupil's place." This motto, though usually associated with school discipline and therefore with the *rights* of the pupil, may also apply here. We must go back to that state of mind we were in before we comprehended the subject, and then by one step more put ourselves in the place of the child, realizing exactly his perplexities and feeling his precise wants. Then and not till then shall we become apt teachers.

How many of our brightest scholars are ever heard from after they go forth in the world; while often lesser lights, the dull, poor scholars outshine them and cause astonishment. What is the trouble? Clearly their good scholarship has given them no impulse to go on to greater attainments by themselves. Their learning is either that of *reception*, as a sponge takes water, or that of mere *memory*. Discipline, *mental power* it certainly is not, else nothing but further progress could satisfy it, and there would be that self reliance which nothing but *impossibilities* could ever subdue.

I am forced to conclude that there is such a thing as teaching a mind naturally active, too much,—exciting it too much,—so that it will prematurely exhaust its energies and gladly settle back into almost imbecility; and on the other hand that there is such a thing as leaving the mind so much to its own resources that without dazzling the beholder, like a flash of the meteor when it glares upon the startled vision, it may be silently gathering materials to support the more enduring light of the morning star, which will at last arise in majesty and glory.

ENGLISH IN THE SCHOOLS.

HARRIET NOBLE, PROF. ENG. LIT., BUTLER UNIVERSITY.

[Second Paper.]

IN my previous article I dwelt upon the need of the constant study of literature and composition in the schools. In this I will try to show how this study may be made feasible. I am assuming that the schools all have the best text-books in the usual language lessons and composition, and so I direct my remarks entirely to the amount and kind of literature.

This last fall I sent out a circular asking the certified schools in the state to report their English courses to me. Twenty six answered, with a promptness and courtesy most grateful. Doubtless these responses came from the schools with the most distinct English work, and concerning these presumably better representatives I gleaned the following:

12	schools	give	. . . . .	1	year of English.
4	"	"	. . . . .	2	" "
4	"	"	. . . . .	3	" "
4	"	"	. . . . .	4	" "
2	"	"	imperfectly,	5	" "

The time spent each week is not always specified, but in the majority of cases there is apparently a period a day.

The kind of books employed is most varied. Work of one year is generally based on histories of literature,—Swinton, Shaw, Welsh, Taine, or Brooke,—accompanied by readings. The reported collateral readings are sometimes excellent. In one case the year is given mainly to Milton, Pope, Gray, Wordsworth, and Shakespeare; and in another "to the study of the chief writers from Caedmon down to Tennyson." Some recite the text-book; others evidently center interest in biography; while yet others slight this for the literature. Little mention is made of composition.

The ten courses of three years and over are manifestly intended to develop taste and the art of composition. A catalogue is but an imperfect index of work really done; but I fancy that some schools try more than is wise by cultivating the *gems* of authors; and others forget sometimes to suit the literature to the attainment of the pupils. I, for example, would not expect a preparatory class to appreciate a worthy amount of Emerson, Milton, or Burke. That, however, must be judged by each case at hand. This all I tell to show the justice of my plea.

The Indianapolis High School has produced such excellent pupils for me that I can not assume any other to make better. Along with much other careful English training, it gives one hour a week to judiciously chosen authors.

SECOND YEAR.—American Authors—Longfellow and Whittier; Bryant and Irving; Lowell and Hawthorne; Holmes and Emerson.

THIRD YEAR.—English Authors—Scott, Tennyson, Byron and Hood, Ruskin, Daniel Webster (Reply to Hayne), Southey, Carlyle, Lamb.

FOURTH YEAR.—Shaw's History of English Literature,—one hour a week; Prologue of Chaucer's Canterbury Tales; Milton's Paradise Lost and Selections from Bacon's Essays; A careful study of one or more of Shakespeare's plays; Studies in Wordsworth and Coleridge, Gray, Goldsmith, Pope, Dryden, Addison, Burns, Moore.

My only complaint is Oliver Twist's—I want *more*.

As showing in print, the Evansville system pleases me the best. For four years it recites daily, doing five standard works a year.

THE EVANSVILLE COURSE IN LITERATURE.

First Year.—Tanglewood Tales, Part II; Evangeline, Deserted Village, Grandmother's Story, Sketch-Book.

Second Year.—Roundabout Papers, Snow Bound and Among the Hills, Enoch Arden, Sir Roger de Coverly, Julius Cæsar.

Third Year.—Thanatopsis and Selections, The Lady of the Lake, The Cotter's Saturday Night, Vision of Sir Launfal, David Copperfield.

Fourth Year.—Prisoner of Chillon, Gray's Elegy, Macaulay's Essay on Lord Bacon, L'Allegro and Il Penseroso, Webster's Bunker Hill Oration, Emerson's Culture, Behavior, etc.

"To be critically read in class with attention given to the formation of words, construction of sentences and expression of thought; characteristics of style and figures of rhetoric, as used by the author; the more important features of English prosody; biographical, historical, and classic allusions; oral and written discussions and analyses of subjects, characters, scenes, and events; frequent written exercises upon well considered topics; the life and writings of the author and his more noted contemporaries."

As showing the practicable in villages, let me say that in Irvington Mr. Williams has satisfactorily introduced four years of literature. He aims at the culture that lies in doing a few things well; and after following from the first grade upward a system of thought building and collateral reading, in these four years he has daily reading and composition.

Seventh Grade.—Longfellow and Whittier.

Eighth Grade.—Washington and His Times.

Ninth Grade.—Irving's Sketch-Book and Alhambra; Sir Roger de Coverly.

Tenth Grade.—Scott's Talisman, Ivanhoe, Guy Mannering, Lady of the Lake, Marmion, and Lay of the Last Minstrel.

In some schools there is an admirable effort to begin the informal introduction of literature in the early grades. Great praise to those teachers that are pioneers in the movement. Is not the day at hand when literature might be recognized as of equal value with arithmetic and geography in all the grades? Why may not history in one syllable be used instead of the First Reader? Why could not Higginson's U. S. History, which I used most successfully with two boys ten years old, be substituted for one Reader; and Mythology for another; and Longfellow for another; and so on from the time a child can read, or even before, until he leaves the schools? Would not the gain to him be incalculable? Would not the probabilities of his being a thinking, reading mortal be increased manifold?

I have a theory both projected to me and corroborated by practical teachers, that if young children were taught less of the abstractions of arithmetic and grammar they in the long run would know them better. And I am asking that, if necessary, a little time each day be taken from these for the purpose of feeding the child's mind with those ideas that belong especially to its youth.

The perfect course for this purpose has not yet been formed. There doubtless might be many beautiful ones. I offer tentatively such a fragmentary scheme as my experiences in the teaching of children supplies.

Stories, poetry, and bits of history might be read to the little ones, while yet the mind is a free page ready for the most lasting impressions. This reading should be so simple that the child not only is interested but can after a little training tell it back again. This relating I should regard as the first and most valuable step in the much neglected art of expression. Then, beginning with the fourth grade, the children might every day read in some such course as the following:

Fourth, Fifth, and Sixth Grades.—Church's Stories from Homer, Hawthorne's Mythology, Anderson, Robinson Crusoe, Robin Hood, Laboulaye, Pilgrims' Progress.

Seventh Grade.—Longfellow, Whittier, Bryant, Palgrave's Children's Treasury.

Eighth Grade.—Washington and His Times, Zigzag Journeys, Coffin's books, Higginson's U. S. History.

Ninth Grade.—Bulfinch's Age of Fable, Miss Younge's Cameos, Froude's Cæsar.

The following is a ten years' course in English, published in the *Academy* by Principal Mead, of Troy, N. Y. It is too full for practical use, but the intention is fine. He says that he aims to select a course of "those books which are organic wholes; which have a beginning, a middle, and an end; those books in which, as Mr. Stopford Brooke says, the language is fashioned with curious care; in which as much attention is given to manner as to matter." He adds, "Do children get this idea of artistic form in seven or eight years spent in the reading class?"

INTERMEDIATE GRADE.

First Year.—Mrs. Helen W. Pierson, † History of England in Words of one Syllable, or † History of the United States; Grimm, Fairy Tales; Kingsley, Water Babies (selections); Æsop, Fables (selections.)

Second Year.—Defoe, Robinson Crusoe; Swift, Gulliver's Travels, (Parts I. and II.); Anderson, Fairy Tales.

Third Year.—Hawthorne, True Stories from New England History; Kingsley, Greek Heroes; Kampe, Swiss Family Robinson; Arabian Nights.

GRAMMAR GRADE.

First Year.—Lucy Cecil White, Story of Literature; Franklin, Autobiography; Tennyson, Enoch Arden.

Second Year.—Gardiner, History of England for Young Folks; Longfellow, *Evangeline; Whittier, *Snow-Bound; Scott, Ivanhoe.

Third Year.—Higginson, History of the United States; Scott, Kenilworth, Woodstock, Lady of the Lake; Longfellow, Hiawatha.

Since the above was written I have come into the pleased possession of Miss Burt's *Literary Landmarks*, (Houghton, Mifflin & Co.). She herself says that half a dozen such books might be written, no two alike, and all good. I say that hers shows the way to more than I in my most sanguine moments ever dreamed of, and that every teacher of children should be guided by its principles; and that when but a portion of such work as hers shall have been done in all the schools, the college professor may rest contented with doing only college work within the college classes.

† Perhaps best suited to the third year of the Primary Grade.

* These selections may be found in two volumes of selections from American prose and poetry, admirably edited, with biographical introductions and explanatory notes, published by Houghton, Mifflin & Co.

FROM BEGINNING TO END.

ANNA H. RANDALL.

LET me introduce to your notice, that scene so unusual to you,—a school room! Filled to overflowing. Three in a seat on one side. Look into the little faces turned so expectantly toward you, and read from the expressive countenances, the future that lies before each. Can you? Ah! no. Happy are you, if at the end of the year you have learned to guide and instruct such a variety of dispositions. Out of the eighty pupils before us I select three, the story of whose school life I wish to relate. They are all boys; and you can scarcely imagine three boys whose characters are more unlike than these.

Did you observe the manner in which each sturdy little fellow appeared on the scene?

No. 1 evidently came under protest. In fact, he wouldn't be here at all if his determined papa had not brought him here by main force. I imagine I can see them on the way. Here and there is a spot where the battle has been desperate, judging from the prints of small heels ground into the sand. Poor papa! He alternates threats and persuasions, accompanied with vigorous "pulls," until they finally reach the school-house; and after a decisive struggle on the hall steps, they arrive at the school room door. Here, boy No. 1, in an ecstasy of rage and despair, digs his fists in his eyes and gives vent to his feelings in unearthly howls, that frighten the timid little souls already assembled out of a week's growth. The combined persuasions of papa and teacher, scarcely heard above the din, fail to pacify or quiet him; until papa in despair finally says, "Well, I'll take you back home. Don't cry any more." And he didn't, the little rascal, but starts off as fast as his chubby little limbs can carry him; and no doubt as soon as he is out of papa's sight, is playing in the gutter with some dirty little urchin whose papa doesn't care a cent whether he goes to school or not. However, he came back at noon; sullen, but evidently conquered. Let us not question too closely, how.

As No. 1 ran out he very nearly ran over No. 2, who was coming up the steps. No need to threaten or coax him. With book and slate under his arm and head erect, he marched into the hall with as much determination as ever a conqueror marched to battle. Barefoot, ragged, an old straw hat on, with his hair sticking through a hole in the top, he

strides back and forth through the hall, evidently taking in his surroundings. Finally some one asked him what he was doing. "I'm going to school," he said, and resumed his march, which he kept up until he was shown into the infant room, where he took the seat given him, with delight and expectation shining from every feature. Even his nose had an inquisitive air.

Just before school time, No. 3 makes his appearance, in company with his mother. He, too, is reluctant; but there is no obstinacy in that sweet little face; only timidity. Even while you are looking at him, his mother speaks to him with a smile on her lips and love in her eyes, and he bravely straightens up, steps from behind his mother's skirts where he has been trying to hide, and looks every inch a little man. After some anxious questioning of the mother about things of which only a mother would think, and a gentle command to "be a good boy now and mind the teacher," answered by a resolute "I will, mamma," she left him, no doubt with sorrow in her heart that her innocent boy *must* go out into the world and begin to learn life's hard lessons.

Half a dozen times during the day I glanced back at the timid little white-haired boy and saw the blue eyes swimming with tears which he bravely tried to suppress. It was two weeks before he gathered courage to trust his voice in the class; always answering my questions with an appealing shadow of a smile; until one day he suddenly found that he could answer something the other boys could not; and his timidity was gone in an instant. Oh! how the little face brightened and glowed as he suddenly realized that he could read a whole sentence. I can see him yet.

As for No. 2, he learned rapidly from the first day. He met every difficulty with a "conquer or die" air that was perfectly irresistible. His voice was loud, his manners—well, he had none. It took me some time to teach him to say even "yes ma'am" and "no ma'am," and to recite without fairly shouting. But his heart was filled with good nature, good intention, and kindness; and above all a determination to master every difficulty that came in his way. With proper training what might not such a boy become. I afterward learned what kind of training he did have. He was one of a large family of children. His mother, poor soul, wanted to do right by her children, but she didn't know how. *She* had been trained in a very rough school herself, and knew nothing but

to freely use the rod, thinking her duty was done. And his father was one of that numerous class, a worthless, profane, and at times dissipated man, who did not earn enough to properly clothe his family. As for home training, they had never heard of such a thing. They thought children had simply to grow, like weeds.

No. 1 in school was, to say the least, *troublesome*. He had to be driven to school every morning, and it was like pulling teeth to get him to recite properly. He belonged to that class who, as they say, are "naturally smart." If he hadn't been, I fear he would have been in the infant-room for an indefinite period, for he made no effort whatever to do more than barely get the task set before him. He was disobedient, evidently taking a delight in breaking rules, and was, at all times, sullen and uncivil. The rod was not spared at home. I was told that both parents would beat him unmercifully; but it only served to drive the evil in his nature deeper *in*, instead of driving it out. And these parents made pretensions not only to respectability, but to intelligence and culture as well.

You can imagine the progress each made in the different grades. No. 1 became what he promised to be, a perfect terror to teachers and school-mates. He was constantly in disgrace, and I have more than once heard teachers anxiously wondering if he would be their pupil, when about to begin a new year's work. Of course he fell behind his classes. No amount of "smartness" will avail unless accompanied by industry; no matter whether child or man. You know of course that he did not finish. In fact, I think he only reached the sixth grade and resolutely refused to go longer. He is now sixteen. I saw him the other day with a cigar in his mouth, coming from a place of questionable reputation. He is far from industrious; in fact is a chronic loafer already, and bids fair to remain one. Of what use will he ever be to a community? None whatever. Now is it the fault of the parents? Did the treatment he received in infancy make him what he was at six years old, or was it his nature to be so; and if so, did he inherit that nature? Where will the responsibility lie? Answer if you can, I can not.

Of course No. 2 made rapid progress. You expect something of a boy so full of good-nature, life and energy. He always kept near the head of his class, it is true; but what became of the good intentions and ambition with which he started out? Perhaps he became discouraged because as soon as he was old enough to be of any help at all, his father kept him

out so frequently. Perhaps the floggings he received occasionally for apparent neglect of duty, filled his naturally loving heart with bitterness: or perhaps the coarse profanity which he daily heard and which of course he copied, polluted his heart and drove the good seed out. At any rate, I was surprised to learn, several years later, that he had become a very bad boy: was the ringleader in some mischief which very nearly caused his expulsion from the school. I was *more* than surprised—I was sorrowful—to think that such a nature had been ruined, and that by bad home training. His parents would far better have murdered him.

He also quit school in a few years; not to loaf, however,—his father is too hard a task master to permit that,—but to follow his father's example and grow up, another laboring man whose hard earned wages go to fill the pockets of those who profit at the expense of men's souls. Every town is full of children such as I have just described—and worse—for many are taught from the cradle to lie and steal. Who will be responsible for the ruin of these? Their souls are in greater darkness than the heathen of benighted Africa. By the time they are old enough to go to school where they can learn something of honesty and right, the principles learned at home are so deeply rooted that school training has no effect whatever. I doubt, if they could be entirely removed from home influences, that other training would avail at that age.

With such a mother, you all know what No. 3 will become. He is still in school,—thoughtful, studious, obedient. He may not finish the school course, for his mother needs him; but you may be sure if he does quit, it will not be to loaf, nor to earn money only to squander it. He will support his mother. She will have her reward for the hours of anxious prayer that she has spent, that her boy might be guided in the right way. Who can estimate the effects of one good mother's influence? It will not stop with her son; he in turn will influence others. He will never be a great man; perhaps will never be known outside of his home, but he will grow into a good man, whose greatest desire will be that he may be worthy to join that mother when she goes to a better home. Of what use is talent if it be only put to a wrong use, and is but the means of causing destruction to the soul? Far rather a simple, unambitious nature that is content to live "for the good that he can do."

The only excuse I have for offering this little sketch is—that it is true. I think I can close with no more appropriate words than the old, old adage,—

"As the twig is bent, the tree's inclined."

GREENFIELD, IND.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

METHOD IN THE SCIENCE OF GRAMMAR.

THE preceding articles on this topic presented the universal activities required in thinking the sentence, and the universal attribute by which it is thought. Individual sentences in their manifold diversity are to be grasped into unity by means of their universal attribute—an organism of triple form to express the three essential elements of a thinking act. Let now the universal principles previously discussed be applied to the process of developing the subject in the mind of the class to be taught. If those principles are to have their full value to the teacher they must become a part of his practical teaching life.

The foregoing principles determine that the first circle of work to be accomplished by a class is that of discerning the universal attribute of the sentence, in all possible variety of sentence forms. At first the attention is not to be held to any attribute except the one that is universal. There are attributes involved in sentence study which belong only to a part of the class sentence. All sentences are not declarative, or complex; these are not marks of the class as a whole.

It is essential to note here the distinction between the individual sentence as a whole and the class sentence as a whole. Both of these wholes are involved in the study of the sentence, and they must not be confused in obeying the law of teaching which requires the procedure from the whole to the part. It is the class whole, and not the individual whole, that primarily determines the procedure in teaching grammar. In the study of an individual sentence, the mind moves from the whole to its organic parts, and from them, back to the whole. In the study of the class sentence, the mind moves from universal content to individual attributes, and back to universal content. In both cases, the movement is from whole to part, and back from part to whole. But the study of the individual sentence is only a means to a knowledge of the class sentence; and the law of moving from whole to part must refer to the class whole, and not to the individual whole. The logical order of treating the individual sentence, "The rain is falling on the roof," would require it to be first described as a whole—a simple declarative sentence,—and then as

to its parts, subject, predicate, and copula. But in treating the sentence as a class whole, the fact of whether it is simple, complex, or compound; or whether declarative, interrogative, exclamatory, or imperative can not be discussed; for the class sentence is neither of the foregoing; and these points must receive attention subsequently to the facts of subject, predicate, and copula. Let it be held in mind that the whole dealt with in grammar is the class whole, and not the individual; and that the treatment of the individual, while involved in the class whole, is a subordinate matter, and must not assume primary control of the thought movement in the study of grammar. The attention is to be held to no attribute in the individual sentence except that which is universal.

The universal attribute of sentences can not be made to appear except by the aid of differences. Sentences are infinite in number, and no two are alike; therefore, they are infinite in variety. This variety of differences must be utilized in bringing to view the common element. The uncommon, non-essential in one sentence must be cancelled by the differences in another sentence. Unity of the whole can not appear except through the diversity of its parts. Differences as well as likenesses, are essential to a concept. Therefore, in bringing the student into a consciousness of the unity of all sentences, the greatest possible variety must be treated. As the first condition of work, the student should be supplied with a book containing all kinds of sentences,—long and short, simple and involved, complex and compound, of natural order and of inverted order, of all shades of meaning and types of form. The ordinary grammar may be used for this purpose; using nothing in it but the sentences. The student should follow the sentences through the book, giving attention to their universal character—the organic unity of triple form. This round of work may require several weeks; but the basis gained for future work, both in knowledge and in discipline, will justify the time. In a long, involved sentence, it is not easy to grasp readily and accurately the organic unity of thought. The habit to do this is fundamental to skill in reading as well as in the study of grammar.

Let us now suppose the student supplied, in some way, with a large number of sentences of manifold variety, well graded for purposes of instruction, and we are ready to proceed with the treatment of individual sentences in the first circle of work. Suppose our first recitation to be on the sentence, "This ink is black." The pupils are to be led to see in

this sentence the universal sentence nature, and nothing more—its triple organic nature. This will require the mental processes before enumerated.

1. Continuing through the other mental processes is that of perceiving the sentence form, the condition of which is supplied in each pupil having before him the particular sentence to be treated. Let it be noted that the perception of the form of this individual sentence is not completed before the other processes are begun; but that perception continues through as a condition of the other processes.

2. The student must consciously distinguish between the form and the content of the sentence—an act of comparison and contrast. This requires as a condition the activities necessary to create the thought—imagination or perception of the real ink, and judgment in perceiving the relation established. A few questions will readily cause the pupils to note that the form of the sentence and what it signifies are different. Direct them to point to the sentence on the board and state where it is; its length, its height, etc. The same with the spoken form. Direct them to point to that for which the sentence stands. They may point to the ink in the bottle. If so it may remain thus at present; for they have made a distinction between form and signification. Further questioning, now or later in the lesson, will lead the pupils to locate what is expressed in the mind of the one who uttered the sentence, or in the mind of the one who interprets it. It will be found that the thought expressed is not on the board in the sentence; but that it is internal, subjective; while the sentence form is external. It may be noted that the thought has not size, length, height, color, etc., as does the sentence. This comparison and contrast, involving sense perception, imagination, introspection, will fix in the mind the fact of a distinction between the sentence form and the thought. Until the formal study of grammar the student's habit has been to pass unconsciously from the form to the content, as in reading; or from the content to the form, as in composition; but he has not made a conscious distinction between the two, which he now does in order to see the organic unity between them. Is the distinction too subtle for the student? Then he is not ready to study grammar. But I am sure that the distinction *can* be drawn by a Fifth Reader pupil.

Note the complexity of the mental process in this analytic step. The eye or ear perceives the sentence form; the eye or the imagination, the

external reality; and the thought is held and observed in consciousness—all of these at the same time, and while the judgment marks likenesses and differences among them. The last act, which is the act of analysis, is the primary one; and the one toward which the teacher's questions should be directed.

3. The third step in the treatment of this sentence is the analysis of the thought into the two ideas related and the relating activity.

Suppose a student be directed to put his finger on the object which the sentence tells about; and then to put it on the attribute connected with the object. He puts the finger on the ink, and then on the black—the real ink and the real black. This process continued with other sentences will impress the unity of the two external realities named by the sentence, and will make an easy approach to the identity of subject and predicate of thought. Let the student be questioned till he notes the fact that the "black" inheres in and is identical with "this ink." Direct him to find "black" elsewhere,—to find "this ink" elsewhere. This he readily does in the case of the black, but finds it impossible to do in the case of "this ink." No generalization should be made from this fact now; but it is the beginning of a series of observations leading to the generalization that the predicate of thought, while partially identical with the subject, yet extends beyond it—is universal in relation to the subject.

Suppose now the student be asked whether the writer wished to express what is in the bottle or what was in his mind. By pressing this matter the student will transfer his attention from the real ink and the real black to the *ideas* ink and black, and to the activity of relating them in the mind. If this point gives trouble in this form, omit till in the process of the next step.

4. The fourth step is that of synthesizing the thought and the form, and thus organize the form.

Direct student to put finger on the real "this ink," and then to point to the part of the sentence which expresses that to which he points. The same with the "real black" and the part of the sentence expressing it. He should be led to note that while the words are apart in space, that which is expressed by them is not thus separated,—that the two expressions have organic unity in the unity of that for which they stand. Direct student to point to remaining part of the sentence—is—and then to point to the external thing for which it stands. This he can not do, as with

the other parts of the sentence. He must turn his attention inward for this; and, if he has not already done so, he may now be forced to locate in the mind the other elements expressed. The mental activity establishing the relation can not be in the mind and the elements related out of the mind.

The student has now separated the sentence into its three parts, and has unified the parts in the relation expressed. He has learned the organic relation of this particular sentence form to the thought expressed. This was the end sought.

This should be followed by the description of many other sentences of the same type—short and simple, having the copula distinct from the predicate. The class may now write out generalizations on the sentences studied, somewhat as follows:

1. These language forms, or groups of words, express the relation which the mind establishes between two ideas; or the act of attention to the relation of identity of two ideas.
2. One part of these language forms expresses the idea to which the mind relates another idea.
3. One part expresses the idea which the mind relates to another idea.
4. One part expresses the relating, or judging activity.

All these should be expressed in many ways to bring out all the shades of truth.

If sufficient experience has been given in the description of individual sentences, the class may now be required to write out definitions of the sentence; subject of sentence; predicate of sentence; copula of sentence. These should run somewhat as follows:

1. A sentence is a group of words, or the language form, expressing the relation which the mind establishes between two ideas; or, expresses a thought, if a thought has been previously defined. If not, the student may here be pressed into the definition of a thought; or it may be done soon.
2. The subject of a sentence is that part of it which expresses the subject of thought; or, expresses the idea to which the mind relates another idea, if subject of thought has not been defined.
3. The predicate of a sentence is that part of it which expresses the predicate of thought; or, the idea which the mind brings in relation to another idea.

4. The copula of the sentence is that part of it which expresses the activity of the mind in establishing the relation of the subject and predicate of thought; or in deciding upon the identity of two ideas.

These should all be variously expressed to bring out the full meaning, and in such a way as to adapt to the course of thought as it has been developing in the minds of the class.

I have formulated these definitions to call attention to a usual error at this point. The parts of the sentence must be defined with reference to the parts of the thought, and not with reference to each other. The subject, predicate, and copula of the sentence refer directly back to the ideas which they express, and refer only indirectly to each other. It will not do to say that the subject of the sentence is that of which something is affirmed; and that the predicate is that which is affirmed of the subject. Nothing is ever affirmed of the subject of the sentence; but of that for which the subject stands. The copula of the sentence does not connect the subject and predicate of the sentence; nor anything else. It only indicates the connecting activity of the mind.

In all statements the student must be rigidly held to distinguish between the form and the content, in the sentence as a whole and in all its parts. A large part of the errors in teaching grammar arise from not requiring the student to make this distinction. The thought and the form must ever be kept distinct in order to discern their organic relation. In the analysis of the foregoing sentence, the student should not say that "this ink" is the subject of the sentence, but the words or expression, "this ink." And he should not say that this is the subject because it is that of which something is affirmed, because there is nothing affirmed of the expression "this ink." This is not quibbling, but necessary to cause the student to separate between the form and content, which have been unconsciously fused in all his language work up to this point. The organic relation of language form to thought is the purpose of grammar study; and this relation can never be revealed to the student who does not first distinguish between the form and the thought.

CHARLES DUDLEY WARNER says that the difference between the "faith cure" and the "mind cure" is that the "mind cure doesn't require any faith, and the faith cure doesn't require any mind."

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDESON, Professor of Methods in the State Normal School.]

ELEMENTARY LANGUAGE.

THE first thing to be made clear in order that instruction in Elementary Language may be effective, is the exact nature of its subject-matter.

Elementary Language is very closely allied to other phases of language work, i. e., Grammar, Reading, Rhetoric, Composition, etc., and on that account its subject-matter is often confused with that of these or some one of them. Therefore the work in Elementary Language lacks emphasis and definiteness.

The subject-matter of Elementary Language may be stated to be *Discourse*. The term Discourse does not signify, however, a mere collection of sentences—even be they so organized as to express a line of thought. Any element of language viewed as employed to express meaning or thought is, in the sense here used, Discourse. When the child upon hearing a sound utters the single word "*bell*," that word is to his mind Discourse, since it is intended to convey the idea in his mind to the hearer. If he uses the sentence—"That is the engine"—this sentence is, in the sense here used, Discourse, for the reason that it is employed by him for the purpose of indicating his thought to the hearer. Let it be supposed that the following expressions are used: "That is a bell upon the engine. It has fastened to it a rope which the man has in his hand. By pulling the rope he causes the bell to ring. This gives notice to those who are near that the engine is about to move or is moving toward them, and thereby warns them of danger. The bell is, because of this, very useful." These expressions are also to the child, Discourse: not because they are a collection of sentences arranged so as to express organized thought, but because they are viewed by him as signifying to another the thought that he has. *Discourse, then, is any form of language, whether a word, sentence, or a collection of sentences, viewed as employed for the purpose of setting forth thought.* Elementary Language is, therefore, by the nature of its subject-matter, unified with Composition and Reading, in that it deals with connected sentences and words; and with Grammar, in that it considers the single sentence. Its subject-matter, however, possesses certain points of distinction from the subject-matter of these

other phases of language work. For example, the sentence expresses a thought concerning a *physical object*, as the bell now ringing, the engine as a whole, etc.; or it expresses a thought about a *spiritual object*, as hope, joy, etc.

Grammar deals with both kinds of sentences, while Elementary Language considers only the first kind, viz., the sentence as an expression of a thought concerning some physical object, or rather as *an expression of the physical object itself and some attribute of it*. In Grammar, furthermore, the sentence is viewed as *the direct expression of a thought* concerning the material of thought; while in Elementary Language, as just indicated, the sentence is treated more as if it were *the direct expression of the object and some one or more of its attributes*. In illustration of this point let the following sentence be considered—"This apple is red." In Grammar this sentence is viewed as the direct expression of a state of consciousness—of a something revealed by introspection. With the object and its attribute before it the mind enters upon a certain change appropriate to the object, its attribute, and their unity. While this is a single state of consciousness, it is, nevertheless, triple. One phase of it is, however, appropriate to the object as a whole, the other phase is appropriate to the attribute, and the third appropriate to their unity.

Grammar treats the sentence as a direct expression of this mental state, and indirectly as an expression of the object, its attributes, and their unity. Elementary Language always considers the sentence as an expression of the thing and the elements seen to be contained in it, or the attributes observed to be true of it. So far as Elementary Language is concerned, that which the sentence stands for can be examined through observation or pictured in the imagination.

The sentence is in Grammar, subjected to both the processes of analysis and synthesis. This is true also, of Elementary Language. In Grammar, however, the analysis is to determine the *structure* of the sentence, and the synthesis is to determine *whether the pupil understands sentence structure*. In Elementary Language the analysis is always to *determine the thought which the language expresses*; and the synthesis or construction of language is for the purpose of *expressing thought already possessed*. In Grammar the sentence is viewed as a *triple* unity expressing three elements of a thought; in Elementary Language the sentence is viewed rather as a *double* unity expressing an object and its attributes, although

its triple nature does appear subordinately. The idea, however, of one phase of the sentence expressing the unity between the object and the attribute is not emphasized.

In Elementary Language the synthesis extends not only to the uniting of words to express a thought, but to the organizing of sentences to express a series of thoughts. These thoughts, however, are concerning *material objects and their attributes*. This, while unifying Elementary Language with Composition, also distinguishes it from that subject in that Composition as a subject, treats also of the expression of spiritual objects. Elementary Language is further distinguished from Composition by *the limitation of its purpose mainly to that of instruction*; while Composition work includes the purposes of moving the emotions and the will. While these two purposes may appear as traces in the Elementary Language work, in the main the thought before the pupil and the teacher when employing oral or written language is to instruct, to inform; to appeal to the intellectual nature of the one addressed.

Elementary Language not only analyzes the single sentence, but also connected sentences. This is a mark of unity that it possesses with reading. It does not, however, as does Reading, deal with emphasis, inflection, modulation, pronunciation, etc. In Elementary Language the expressions are not only viewed as to *correctness* of structure which is the central thought in Grammar, but also as to *appropriateness*. This marks the unity of Elementary Language and Rhetoric. It is seen, therefore, that the subject-matter of Elementary Language is in one sense, more narrow than that of Grammar, Rhetoric, Reading, or Composition; and that in another sense, it is wider.

THE IDEA IN THE THIRD YEAR OF GEOGRAPHY WORK.

In the work preceding the third year the ideas of distance, direction, color, form, and size have been considered. These receive their geographical significance in this way: Suppose the ovoid to be the subject of a series of lessons. After the form is thoroughly mastered, even to its molding and drawing, the children suggest animals that are essentially that shape. The duck may be given, and then follows work on something of the nature of the country where it lives, its use to man, etc.

The *pear* is an example in the vegetable life, and similar work is done with it. A color studied is treated in the same way, and minerals can be given here as well as animals and plants. The child, then in the second year, reaches out into a wider field and studies the different regions of the world, as heat belts, through the institutional life of its people. He learns about the frigid country by seeing how a child lives in that place. We now see what the child has gained through systematic work in the first and second years. Add to this his knowledge of the motions of the earth (he knows seasons and day and night), his knowledge of the physical earth, as rain, snow, pond, hill, creek or river, etc., and a few ideas of political life, and we see him as he is ready for the third year.

It is clear that the greater part of our knowledge of the earth is that acquired through the map. Our own observation, the pictures we may see, and the books of travel we may read can not for obvious reasons be substituted for it. An accurate study of the earth both as a whole and in its parts requires this mode of representation.

In order to be complete master of the map the child must have something of an idea of the immensity of the earth; of its great land and water bodies, else he can not on looking at a map know and feel the largeness of the real here represented. More than this, he must be able to look back of the terms used—*river, plain, isthmus, cape*, etc.,—and know just what each is. (I do not mean that a set definition, formulated by a textbook maker and learned by the child, is a knowledge of these ideas.)

So, for the most thorough work in geography, there must be a phase that has for its object the mastery of the map. This may be said to be the idea of the work of the third year. As before stated this involves two things,—first, an idea of the great size of the earth (and with it something of the institutional life of the people); second, an idea of the essential features of the land and water forms, as *island, lake, river*, etc. The child must be brought into contact with enough islands through his own actual experience, and by means of pictures and descriptions of other islands, to be able to drop out all the non essential points and to retain only those that are necessary to the idea. He must see that it does not have to be long like Cuba or triangular like Great Britain in order to be an island, and that any one particular shape is not an essential feature in the idea. So the work consists in the study of a number of examples of every element studied—enough to make the child able to formulate his own definition.

This is but one part in the preparation for the map. The other phase requires work that will give the child a more definite idea of the great size of the earth; of the land and the water bodies; and with these something of the institutional life of man in these different lands. This may be carried on with the work on the elements in the form of imaginary journeys from the home to the special element studied and the return, or it may be given in a distinct series of lessons. The use of the imaginary journey is better than the second way for several reasons. A year's work of this kind makes the child able to use the map as a means only, not as an end, and viewed in this light, the main idea in the third year is to make the child master of the chief means of obtaining geographical knowledge—the map—by considering it entirely from the meaning side.

S. T.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal in Indianapolis Schools.]

INSTITUTE NOTES.

THE Institute season is about over and most of the teachers are in their schools at work. While attending the institutes many teachers took notes on the talks given by the instructors. These notes should recall what the teacher thought when he took them. To be profitable, the suggestions they give must be worked out by the teacher. One's "General Idea of Method" is of very little use to him if he can not make a special application of it in teaching the First Reader class to read.

He may have among his notes such as follows: 1. "Method is the mental process necessarily involved in the mastery of any point, or in comprehending any branch of study." 2. "Method is determined, primarily, by two things: (1) the essential attributes of the subject dealt with, and (2) the essential characteristics and laws of mind; and secondarily, (1) the present condition of the child's mind as to the subject to be taught, and (2) by the purpose held in view in teaching this special point or subject."

These statements may have been discussed by the instructors till the teacher believes in them and accepts them as the underlying principles of all method. But there is something for the teacher to do when he un-

dertakes to prepare his daily school work. He must prepare it with these principles in view. Suppose he is preparing to teach reading to the First Reader pupils. He asks himself what the essential attributes of reading are. He remembers his notes on Reading as given in the institute. He turns to them for suggestions. He finds that he has noted that the "subject matter of reading has, as a characteristic, printed language." Language is an arbitrary symbol and does not set forth its meaning as a picture does, so the mental process in mastering it is inference. He has also noted that "the mind has a tendency to grasp a thing first as a whole." Language is made up of words, phrases, clauses, sentences, punctuation marks, etc. These are symbols of ideas and thoughts. The teacher, then, will teach them as symbols of ideas and thoughts and not as words to say. He will see that every word calls up its appropriate idea and that the idea will suggest its word. He will do this by associating the two many, many times. He will call up the idea *dog* and show the printed word *dog* as the sign of this idea. He will use the child's present knowledge to help him make the association. The child knows the spoken word *dog*. The teacher says, "When you *hear* me say *dog* you think of the animal *dog*. So when I see the word *dog* I think of the real *dog*. I wish you to learn to do this, then you will have two things that will make you think of *dog*"

There are many devices of following this "mental process" or method, e. g., to call up the *idea dog*, the real dog may be shown, or the picture of a dog may be presented, or the spoken word may be given. The printed word may be presented by making it on the blackboard, or pointing it out in the book, or giving it on a slip of paper. None of these is a method. Each is a device of following the method. Now, if the teacher have the child spell the word first he is violating the tendency of mind to grasp a thing first as a whole, and also his present purpose in teaching the word as a sign of an idea. Speaking, alphabetically and phonically, has its place and should not be neglected.

When several words are learned as symbols of ideas they may be combined in such a way as to express a thought. This expression is a sentence and should be grasped as a whole by the pupil before he is asked to read it orally. Just here the young teacher or the thoughtless teacher often makes a serious mistake. The child knows all the words in a given sentence and the teacher assumes that, of course, he is ready to read, but he is not, because he has not in mind the sentence as a whole.

The pupil should be told to study the sentence and see what it tells, and afterwards asked to read it to let his teacher know what it tells. When the child has thus grasped the meaning of a sentence as a whole his oral reading will be correct so far as the expression of the thought is concerned.

The teacher who studies his institute notes and follows out the suggestions they give will see that none of his devices violate any of the principles that determine method.

GENERAL INFORMATION.

EXPLORATION OF NEW MEXICO AND ARIZONA.

It is now proposed to explore these for the purpose of examining the remains of ancient civilization. It is said that there are remains of a civilization adte dating that of the Aztecs. These are found principally in the vailey of the Gila. These facts should be given to the children when they are studying the geography of this part of the country. The mark that represents the Gila would mean more.

The names of some noted geographers should be given the children occasionally. This proposed exploration is to be conducted by Prof. Carl Lunsholtz, the Norwegian explorer, under the diriction of the American Geographical Society of New York. The Prof. made himself famous among geographers by his expeditions in Australia. Several scientists of note are to accompany him in this proposed expedition.

ADMISSION OF TERRITORIES.—The House Committee on Territories propose to send a sub-committee to inquire into the social, educational, moral, and financial conditions of New Mexico, Arizona, and Utah, and to report whether they can be admitted into the Union as States without doing injustice to them and States already in the Union.

What are the conditions of statehood? Submit the question to your history class studying the "Administrations."

BRAZILIAN RECIPROCITY.—Brazil offers in return for the United States admitting their sugar free of duty, the following: To remove duty on farm products exported from the United States; on agricultural implements and machinery; railroad equipments and supplies, including railroad iron; also a reduction of at least 25 per cent. on cotton and leather goods and clothing.

Ask your history class why Brazil proposes this. With what nation does Brazil do most of her trading now? What is the most important article that it imports?

For a fuller account of the above read the *Week's Current* of Sept. 8.

THE GREAT OCEAN STEAMSHIPS.—Few people who have not rode on one of these great vessels realize what a stupendous affair one of them is. The "Teutonic" burns about \$1200 worth of coal a day. The amount of provisions taken on board for a trip is wonderful. They "stock up" for a fifteen days' journey so as to be prepared for any accident that might keep them out longer than the regular time to make a trip. They take on board about 8000 pounds of fresh beef, 4000 pounds mutton, 500 pounds corn beef, 600 fowls—chickens, turkeys, grouse, etc.; 1500 pounds fish, 2600 pounds ham, 10 tons potatoes, loads and loads of other vegetables, 500 quarts milk, 9000 eggs, 900 pounds butter, 250 pounds tea, 1200 pounds sugar, several tons of flour, and many luxuries. A trip often costs \$50,000. They often take \$60,000 or \$70,000 at a single trip.

For a very interesting and full account of these great vessels, see *Week's Current*, Sept. 8.

ANTIETAM.—September 17 was the twenty eighth anniversary of the battle of Antietam, and two regiments on that day erected monuments on the field. The Fifth Maryland Infantry placed one a hundred yards north of Bloody Lane, on the Union right. The second monument was placed by the Fifty First New York Infantry at the eastern corner of the northern wing of Burnside's bridge on the Union left. On the opposite or eastern corner of the southern wing of the bridge stands a shaft, erected several years ago, by the Fifty-first Pennsylvania Infantry. There has been a dispute which of these two regiments crossed the bridge first when it was carried by Burnside.

Read to the history class. Why was this an important battle?

COUNTRY SCHOOL DEPARTMENT.

COUNTRY VS. CITY METHODS.

WHAT will do very well in the city, but it won't work in the country," is an expression often heard at Institutes. When applied to the "machinery" of the school, and to many devices, this is true; but when

applied to instruction it is, as a rule, not true. In a city where large numbers are thrown together a great deal of "red tape" is desirable, not at all needed in the country. If five hundred children are to pass in and out of a school building, it is essential that system and order be enforced to prevent accident; but where a school consists of a single room, no such regulations are needed.

In the matter of instruction it is different. Method has to do with the nature of mind and the nature of the subject, and *location* has nothing at all to do with it. If a child in the city can learn to read most readily by beginning with words rather than the names of letters, the same would be true if the child should move to the country. Child-mind is much the same in city and country, and the rules of arithmetic are not modified by corporation lines. Country teachers labor under some disadvantages owing to the large number of classes they must hear each day, and may not be able on this account to advance classes so rapidly; but this will not justify them in holding on to the old methods. If a class must be heard in ten minutes instead of twenty, this is the strongest possible argument in favor of the best methods. It is safe to assert that every method used successfully in cities has been used to good advantage in the country, and *vice versa*.

W. A. B.

ECONOMY OF TIME.

A VERY GREAT PROBLEM with the country teacher is how to do eight hours work in six. No more than this latter number of hours should be spent in the school room, and it is thought by many that it would be better if this were lessened. It appears to the writer that much of the complaint of "too much work and too little time" comes from a lack of business ability of the teacher. The teacher needs to cultivate business tact; he can not afford to lose time; he must neither be too slow nor so hasty as to make mistakes. He must plan his work in advance; must know what to do at a certain time and have his plans of work matured. Nor can he afford to have too much plan or "red tape." Let me mention a few places where teachers often lose time:

First, too much time is spent in the organization on the first morning. Too many and too long speeches may be made. Too much time may be spent in getting necessary information that should have been gotten before school or during the day. The apt teacher will secure much

general information from a few pupils before time for opening school. This will enable him to organize his classes on his original plan and correct mistakes at the recitation or at intermission. Then when school is called he should have such opening exercises as he intends to have regularly, and then *assign the lessons of all classes*, making a general classification of pupils as he does this, and call the classes at once. If school is called at nine o'clock, the first class should be reciting at 9:10, as his program on the board announced. How would I get names, ages, etc.? Do this at the recitation or at recesses, or noon; no absolute hurry about this. The names of many should be learned before school is called. Of course, this only refers to one morning, but if this is overcome other reforms will follow.

Second, many teachers have too many classes. How can we help it? Let us see. Here are two little fellows that have been taught to read some at home, and here are two others of the same age who do not know their letters. Put them together. A little extra time at recess, at noon, or in the mornings, will soon bring them together. Send word to the parents asking their help for a few days; ask their older brothers or sisters in school to help them; or ask some other older pupils to assist you. Again, you may find two or three pupils in the Second Reader and the same number in the Third Reader. If the latter class is poor put them with the others, half the time at least. If both classes are properly placed, put them together, twice a week in supplementary reading. This can be done more often with Fourth or Fifth Reader classes. These classes can often be put together, reciting one day from one book and the next from the other. If letter writing has not been taught, put all the grammar and language classes together once a week in this subject. Arithmetic classes are usually poorly classified, *i. e.*, there are usually twice the necessary number of classes. I was in a school not long since and heard two arithmetic classes recite, and their lessons were not ten pages apart. If you find two classes, one having finished compound numbers and the other having just reached that subject, put them together in fractions, assigning to the latter class an occasional lesson in compound numbers as extra work, with the promise of keeping the classes together if they bring up that subject. Then when fractions are completed, a good review, which the former section would probably need, would bring them out together. The teacher should have some extra arithmetics from which

to get supplementary problems. There are often very foolish divisions in geography. A teacher never needs to have but one class in higher geography. If at the opening, one class has gone half through the book and another is just beginning in that book, put them together with the advanced class. A pupil can just as well begin with Africa as with North America. This new class has studied the map of the United States and has probably gone through some primary geography. No country school should ever have but two classes in geography. One in oral lessons and one in advanced work.

These are not mere theoretical suggestions. The writer has done in country schools what he here recommends. They may suggest others.

—"M." in *North-Western Journal of Education*.

QUESTIONS FOR THE EVENING HOUR.—1. Have I *taught* to day?

2. Am I making my pupils self-helpful?

3. Have I, in this day's work, comprehended the true end of education?

4. Are my pupils learning self control from their association with their teacher?

5. Have I to day, by word and action, taught honesty, integrity and truthfulness?

6. Am I developing in my pupils the power of organized and independent thought?

7. How would I like to go to school to such a teacher as I am?

8. Are my pupils better children in their homes because of my influence?

8. Do I treat my pupils as I would like to have a teacher treat my child?

10. How often do I see school work as it appears to parents?

—C. H. GURNEY, in *Ed. Journal, Toronto*.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This Department is edited by Miss A. E. FREDRICKSON, of La Porte, Ind.

FORM.

ALL sciences are begun in the cradle. In the first and simplest forms which the child observes lies the beginning of geometry and natural history. With the conscious exercise of motion and force begins natural philosophy and mechanics. When it catches the rain drops and tries to catch and hold the sunbeams in the same way, it has from this experi-

ence gained ideas of natural phenomena. Its first few steps in the yard at home are the first in the realm of geography and geology. Even the metaphysical sciences are begun at this time. When the child can read the expression of pleasure or pain on the mother's face, it knows something of mental philosophy, and so on. One day of busy childish play will explore half a score of sciences.

No child enters our schools who has not begun the study of sciences and gained hundreds of facts in every one of them. We must ascertain his knowledge of facts and use the knowledge of the child as a basis for our work in leading him to a knowledge of the nearest related unknown. This should be done in the manner indicated by the kindergarten gifts; each foreshadowing the other, each containing all that the other did and more; thus being a means of employing the power of the child, and of gaining greater power.

When consciousness was aroused in the child and his eyes fell on the six worsted balls of the First Gift, kindergarten material, it was a beautiful thing. It represented his universe. From these individualities he discovered his own individuality. The gift said to him, "I am here." He grasped it and played with it, and from these various experiences gained ideas of motion, form, color, compressibility, and elasticity.

The Second Gift, consisting of wooden cube, cylinder, and ball, gave him ideas of character. This gift said to him, "I have a will, you can not do all that you would like with me." It also represented to him the universe, but as divided into the three kingdoms; the cube representing the mineral kingdom, the cylinder the vegetable kingdom, and the ball the animal kingdom. So on with all the Gifts, each came to him with a mission, each spoke to him and helped him to accomplish some purpose and employ all the skill he possessed. They were to him a means of growth, and with this growth there was constant enjoyment. He had a feeling of fellowship with them and respect for them, for they have helped him to lift himself above himself.

Aside from the mental value, I would emphasize the study of form as a source of purest pleasure. No other intellectual pursuit is more valuable and at the same time so delightful as the habit of methodical analysis of forms. Arithmetical power is employed in computation for temporary ends. Geometrical power is in constant exercise. Nature has it for her closest companion. Her most precious jewels are hidden away in geometrical forms. The fact may more clearly be seen in a short walk

through fields or woods. The things which charm us most are the beautiful forms on every side. The forms of flowers at our feet; the arrangement of leaves on the stem; the undulations of the land; the curves of the shore of the lake; the grouping of trees; the outlines of the forest and the beautiful and varying forms of the clouds, all deeply impress us. This study blends naturally with all that is holy and reverend in our nature, and leads us to view the outward creation as the work of a Divine hand. Yet all this is hidden save to a geometrical eye.

The question which arises with the true teacher is, "How shall I lead children to see these things?"

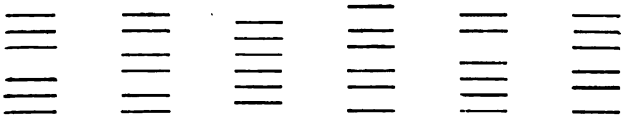
It can not be done by telling; the words are but shadows of the things, and if words are used the knowledge gained will be correspondingly shadowy, for it is certain that there is nothing in the understanding that was not set free by the senses. It is then, through the senses that we must appeal to the child. It must be given forms which it may observe and handle. The child's first knowledge of form must come through the sense of touch. If an object be presented to one of untrained touch it would appear as a flat surface with varying lights and shades. But placed in the hands the touch would reveal to the mind the form of the object. By means of association of these form concepts with sight products of light and shade we develop the more valuable but acquired judgment of form by sight.

A NUMBER LESSON.

THE number six is being studied. The children have had number-plays, using blocks and beads. To day there is placed on the blackboard:—

$$\begin{array}{rcl} 2 & (3) & \cdot \quad 2 & (2) + 1 + 1 \\ 3 & (2) & & 2 + 4 \\ 6 & (1) & & 3 + 2 + 1. \end{array}$$

The children are given sticks to illustrate the problems. This is the result as seen on the desks:—



The children then make and give to each other for solution little problems like the following:—

I had 6 apples. I gave them to 3 children; how many did each get?
I have 6 marbles. I give 4 to John; how many have I left?
I have 6 cents. How many pencils can I buy at 2 cents apiece?

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

THE Executive Committee of the State Teachers' Association are at work on the program for the next meeting, and it is well nigh completed. The meeting will open Dec. 29, and will be conducted on the half day plan; i. e., the general association will hold its sessions forenoons and evenings, and the sections will occupy the afternoons. D. W. Thomas, of Elkhart, is chairman of the committee.

REJECTED BECAUSE SHE WAS HOMELY.—President Carroll, of the State Normal School at New Britain, Conn., has recently caused a sensation by dismissing a teacher because she was not good looking!

It seems that the trustees had employed, on recommendation, Miss Carrie E. Wells, of Youngstown, Ohio, as teacher of gymnastics, for a term of three months. When the lady made her appearance at the opening of school, the fastidious president decided that she "was too homely," and so she was paid her traveling expenses and a month's salary, and discharged. It is said that while the lady is exceedingly plain she is very engaging in her manners and soon endears herself to all who meet her.

The Journal hopes that Miss Wells will sue the "good looking" president and his trustees for her full salary for the full time for which she was engaged, and make them pay it. Such conduct serves to show what big fools sometimes get into high places.

AGRICULTURAL INSTITUTES.

The last Legislature appropriated a small amount of money to assist in holding Agricultural Institutes in the different counties of the state, and planning and management of these were intrusted to the faculty of Purdue University. President Smart took hold of the enterprise and pushed it to complete success, as is his wont. Prof. Latta, the experimental farmer of the institution, was put in charge, and during last year institutes were held in about fifty counties of the state. These institutes do for farmers what teachers' institutes do for teachers—they give to all the best ideas and the best methods of the most experienced and most successful.

In these institutes papers are read and experiences are given, not only by Prof. Latta, but by successful farmers, horticulturists, and stock-raisers. These discussions must be of immense value to any farmer who is capable of learning anything. Some farmers, like some teachers, already know enough, and never avail themselves of such opportunities.

The coming year institutes will be held in the remaining counties of the state and perhaps in others, and the Journal wishes to commend them to the thousands of teachers who farm a part of the year. If they can not attend themselves they should encourage their friends to do so.

MARRIED WOMEN AS TEACHERS.

The Cincinnati school board, by a vote of twelve to eleven, has excluded all married women from the schools as teachers. It seems that a member, Mr. Cormany, wished to have a Mrs. Miller appointed as teacher, and because she was not appointed, he introduced a resolution to the effect that all married women should be excluded, with the result stated above. In this way this *liberal-minded* (?) Mr. Cormany took his petty revenge, not on the other members of the board who rejected his candidate, but upon twelve innocent, absent teachers who were in no possible way responsible for what was done. The English language does not furnish words sufficiently strong to express the contempt all just people must feel for a man who will prostitute a public office and a public trust to such base uses. The other eleven members who voted with Mr. Cormany were not much better than he, although they might have had reasons for their votes not given by their leader.

There is a *theory* and it amounts to an unwritten law in some places (Boston, for example), that married women should not teach school, on the assumption that their home duties do or *should* absorb their time and strength—and further that it is the duty of the husband to make the living for the family. The theory is all right, but unfortunately it will not apply in all cases.

There are many, very many married women who are compelled to support or help support their families, and it is simply inhuman to arbitrarily exclude them from perhaps the only remunerative work they are qualified to do well. Such action on the part of a school board says to a married woman, no matter what her qualifications or necessities—you can sew, or wash, or cook, or starve, but you can not teach for us—we want all our places for inexperienced girls just out of the high-school.

It is also a fact that many married women *choose* to teach, rather than devote all their time to their home duties, and it is not often the case that the homes of such suffer, and it is almost never the case that their schools suffer. Some of the best and most devoted teachers the writer has ever known have been married women.

It must be admitted that a woman who gives much of her strength to home duties can not keep up properly her school work in all its phases. This is true not only of married women, but of unmarried women who are under the necessity of helping to support families. What, then, shall we say of young women who devote all their time and strength out of school to *society*, and go morning after morning to their schools exhausted and without preparation? What shall be said of men, who while teaching school, spend their time and strength in farm duties, or in reading medicine or law, or waste it loafing?

Is it not apparent, to any one who will think seriously for a moment, that no arbitrary rule can be made either including or excluding any class of persons as teachers.

A school board that is capable of thinking and acting on a high, unselfish plain will select the teacher that will do the *best work*, and will make *efficiency* alone the condition of election.

POLITICS AND THE TEXT-BOOK QUESTION.

The Journal has on several occasions expressed regret that the text-book question should have been dragged into politics. The question is purely an educational one, and yet it is absolutely impossible to discuss it upon an educational basis. The party that secured the present law as a caucus measure expected to make party capital out of it, and this was an all-sufficient reason why the opposing party should make war on the law, to the end that no partisan advantage might be gained. So the result has been, that among the newspapers and politicians, with but few exceptions, there has been uniform approval of the law and a defense of every part of it by one party, and just as universal a condemnation by the other.

Take the law out of politics and there is no reason in the world why there should not be as many Republicans as Democrats in favor of the law, and as many Democrats as Republicans opposed to the law.

Since the last issue of the Journal the two leading political parties have held their state conventions, and each has had something to say on this text-book question. The Democratic resolution is as follows:

"We applaud the school text-book laws by which the people are given school-books at one-half their former price. We favor such additional legislation as will give full effect to the objects of this act, and will extend its scope as far as practicable, and pledge ourselves to resist every attempt of the school-book trust to regain its old control over our public schools. We favor such simplification of the school laws affecting township trustees and county superintendents, and their duties, as will increase their efficiency and decrease expenses."

The Republican resolution is as follows:

"To the end that free schools may accomplish a more perfect work and extend the inestimable benefits of education still further, to free school-houses and free tuition we would add free text-books, so that to the humblest child within our borders would be offered an education absolutely free. Legislation to this end should not be postponed, but be so framed as not to impair contracts to which the state stands pledged."

In this way the Republicans go the Democrats one better, and if the Democrats can give the people books at *one-half* the original cost, the Republicans propose to give them to the people *free*.

But now that the Republicans have declared for free text-books, the Democrats have already begun to fight the proposition, to the end that no party advantage shall be gained.

Now it will be absolutely impossible to discuss this free text-book question upon its merits as it has been dragged into politics. Both parties ought to be ashamed of themselves for undertaking to make partisan capital out of purely educational questions.

When the politicians get through with these matters and they can be discussed on their merits, the Journal will have something to say.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN AUGUST.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to the standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

Or, the county superintendent may conduct the examination in these subjects in any manner he may desire.

ENGLISH GRAMMAR.—I. In each of the following cross out the word not necessary:

- (a) The bell rings $\left\{ \begin{array}{l} \text{clear.} \\ \text{clearly.} \end{array} \right.$
- (b) The curtain hangs $\left\{ \begin{array}{l} \text{graceful.} \\ \text{gracefully.} \end{array} \right.$
- (c) He appeared $\left\{ \begin{array}{l} \text{prompt} \\ \text{promptly} \end{array} \right\}$ on time.

2. Give your reason for the answer to question 1.
3. What is a factitive object? Give two examples and explain.
4. Analyze: "Ivanhoe," one of Scott's best novels, conveys a just conception of his inimitable powers of description.
5. What is the difference in meaning between:
 - (a) He was contemptuous.
 - (b) He was contemptible.
6. What is it to give a synopsis of a verb? To conjugate a verb?
7. Write the possessive form of each of the following: boys, women, Moses, shears, horse, father-in-law, lady, ladies.
8. Insert the proper pronouns in each of the following:
 - (a) Help ——— you see needs help.
 - (b) I will give it to ——— most needs it.
9. What does a sentence like the following mean: It rained hard last night, hence the river will rise soon.
10. What value in education has the practice of analyzing sentences?

ARITHMETIC.—I. Express 145 rds. 2 yds. 1 ft. 6 in. as the fraction of a mile.

2. I sold goods at a loss of 20%, losing thereby \$57.50. What was the prime cost?
3. Explain the difference between simple and compound interest.
4. Find the principal which will amount to \$962 in $4\frac{1}{2}$ years at $4\frac{1}{2}\%$.
5. Write in words: a 267; b 200.067; c $2\frac{8}{10}\frac{9}{10}$; d $200\frac{8}{10}\frac{9}{10}$.
6. If a merchant pays $6\frac{1}{4}\%$ per yard for muslin, and sells the same for $7\frac{1}{4}\%$ per yard, what is his gain per cent.?

7. Extract the square root of 5.71 to four decimal places.
8. The consequent is $\frac{1}{2}$ and the ratio $\frac{1}{3}$; what is the antecedent?
9. What is the diameter of a water-wheel whose circumference is 78.54 feet?
10. What is the edge of a cube which shall contain as much matter as a solid 20 ft. 6 in. long, 10 ft. 8 in. wide, and 6 ft. 9 in. high?

GEOGRAPHY.—I. Bound Ohio.

2. What is the tropic of Cancer? Why is it called "tropic (*i. e.*, turning point)? Why "of Cancer?"
3. Where are the following rivers: Murray, Rio de la Plata, Zambesi, Ural, Lena?
4. Explain the comparative lengths of degrees of longitude; of latitude.
5. What is meant by "Standard-time?" How does it differ from "Sun-time?"
6. What are the chief industries of Key West?
7. Where are the source and the mouth of the River Rhine? Through what countries does the Rhine flow?

PHYSIOLOGY.—I. What do you understand by "elimination" and "absorption," as applied to the various processes in the body? Give an example of each. 12

2. Trace a piece of bread-and-butter from the hand to the blood, mentioning the organs which act upon it and the change produced by each. 20
3. Trace an air-passage from the nose to an air-cell in the lungs. 12
4. What is the cerebrum? How is it divided? Describe its structure. 15
5. Describe briefly the structure of a muscle, and explain what is meant by contractibility. Give three cautions that should be observed in taking exercise. 15
6. What blood-vessels contain dark blood? Why is it dark? 10
7. Through what parts of the eye does a ray of light pass before reaching the retina? What is the iris? What is its function? 16

SCIENCE OF EDUCATION.—I. Science of Education, Pedagogy, Pedagogics. What do these terms denote?

2. Define attention. Discuss briefly the power of attention in its relation to education.
3. What is meant by a method of instruction? By what means shall the teacher determine an intelligent method for presenting any subject to a class?
4. A teacher wishes to teach the fact that the case form of a relative pronoun is determined by its use in the clause. By the deductive method how would he proceed? How by the inductive method?
5. Suggest how the teacher might combine these methods.
6. When reading and writing are called "instrumental knowledge," what is meant?
7. "Reading is the translation of written language into spoken language." "Reading is the art of pronouncing words at sight of their visible characters." Give your estimate of these definitions, with reasons. (Any five.)

U. S. HISTORY.—1. Give an account of the Seminole war, following this outline:—

- (a) In what portion of the country did it occur? Was the character of the country in which the war occurred more favorable to the Indians or to the U. S. troops, and why?
 - (b) What were the causes of the war?
 - (c) Which side was finally victorious, and what was gained by the war?
 - (d) Who, in your judgment, was most to blame for the war, and why?
2. Public schools in the United States.
- (a) Ways in which the Federal Government has aided the establishment of public school systems.
 - (b) Sources of revenue other than Federal aid.
 - (c) General form of organization in the separate states.
 - (d) The moral right of the government to tax all property for free education of all the children.
 - (e) The relative need of public education in republican and monarchical governments.
3. Acquisition of territory by the United States.
- (a) In each case, from what power obtained?
 - (b) On what terms?
 - (c) Has its acquisition proven beneficial or otherwise?
 - (d) If beneficial, in what way of greatest benefit?

READING.—“Build thee more stately mansions, O my soul,
As the swift seasons roll!
Leave thy low-vaulted past!
Let each new temple, nobler than the last,
Shut thee from heaven with a dome more vast,
Till thou at length art free,
Leaving thine outgrowth shell by life's unresting sea!”

From Holmes's "Chambered Nautilus."

1. Ask 10 suitable questions, calculated to bring out the meaning of the above extract. 10 points, five each.
2. Write a brief biography of Holmes and name his most important works. Mark from 1 to 50.

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. Describe a stately mansion.

2. What is meant by seasons?
3. What is meant by the low-vaulted past?
4. What temples are meant in the fourth line?
5. What is a dome? Mention one or two noted domes.
6. When will the soul be free?
7. From what will it be free?
8. Explain “out-grown shell” and “life's unresting sea.”

9. Why not say restless instead of unresting?
 10. Write in your own words the thought in this verse.

Oliver Wendell Holmes was born at Cambridge, Mass., Aug. 29, 1809. He graduated at Harvard in 1829 and began the study of law, which he soon abandoned for medicine. He became eminent in his profession and now holds the chair of anatomy and physiology in Harvard. He is a poet as well as a general writer. Some of his principal works are the Autocrat of the Breakfast Table, Elsie Venner, The Guardian Angel, Old Ironside, The Boys, Bill and Joe, etc.

ARITHMETIC.—2. $\$57.50 \div 20 = 287.50$, cost.

4. $.04\frac{1}{2} \times 4\frac{1}{2} = .20\frac{1}{4}$. $\$962 \div 1.20\frac{1}{4} = \800 , principal.

5. (a) Two hundred and sixty-seven.

(b) Two hundred, and sixty-seven thousandths.

(c) Two hundred and sixty, seven-thousandths.

(d) Two hundred, and sixty seven-thousandths.

6. $7\frac{1}{2} - 6\frac{1}{4} = 1\frac{1}{4}$, gain. $1\frac{1}{4} \div 6\frac{1}{4} = \frac{1}{5} = 20\%$, Ans.

8. $\frac{1\frac{1}{2}}{1\frac{1}{2}} \times \frac{1\frac{1}{2}}{1\frac{1}{2}} = \frac{2\frac{1}{2}}{2\frac{1}{2}}$, the antecedent.

9. $78.54 \div 3.1416 = 25$ feet, Ans.

10. $20\frac{1}{2} \times 10\frac{3}{4} \times 6\frac{3}{4} = 1476$. $\div 1476 = 11.38 +$, Ans.

GRAMMAR.—3. Sometimes the idea of activity in a verb or adjective involves in it a reference to an effect, in the way of causality, in the active voice on the immediate object, and in the passive voice on the subject of such activity; the second object is called the factitive object, as—

He made the water *wine*.

He was made *president*.

4. A simple declarative sentence. *Ivanhoe* is the subject, *conveys* is the predicate, and *conception* is the object. *Ivanhoe* is modified by the phrase "One of Scott's best novels." *Conception* is modified by *a* and *just*, and the phrase *of his inimitable powers*, and *powers* by the phrase *of description*.

5. (a) Contemptuous—showing contempt, haughty.

(b) Contemptible—deserving of contempt.

6. (a) Help *whoever* you see needs help.

(b) I will give it to *whoever* most needs it.

7. It teaches the proper construction of sentences; it shows the relation and the dependence of the parts of a sentence. It cultivates the reasoning powers, and is a guide to the meaning of a sentence.

GEOGRAPHY.—2. The tropic of Cancer is an imaginary circle passing around the earth parallel with the equator and $23\frac{1}{2}$ degrees north of it. It is so called because when the sun reaches this tropic it turns its course and returns south. It is called the tropic of Cancer because when the sun reaches its most northern point and begins to move south it is in the constellation of Cancer.

4. As the meridians all pass through the poles, the degrees of longitude become smaller as we go north or south from the equator. They vary as the cosine of latitude. Owing to the fact that the earth is somewhat flattened at

the poles, the degrees of latitude are slightly longer as one goes north or south from the equator.

5. Standard time is a system of time recently adopted by the railroads, in which the United States is divided into four belts or divisions of fifteen degrees each, called the Eastern, Central, Mountain, and Pacific divisions. Each of these divisions being about fifteen degrees wide, represents one hour of time, and every point in each division has the same time, and points in adjacent divisions differ in time by an hour. In this it differs from sun-time, which varies as the longitude.

6. Growing tropical fruits, such as oranges, lemons, bananas, pineapples; also fishing and wrecking.

PHYSIOLOGY.—1. Elimination or excretion is the process by which waste material or injurious matter is removed from the tissues of the body. Absorption is the process by which the lacteals, the blood-vessels, and other organs take up nutritive or other substances from the adjacent tissues, and carry them into the circulation. The lungs give off carbonic acid and absorb oxygen.

2. It is first masticated in the mouth and mixed with the saliva; it then passes to the stomach, where the albuminous portion of the food is dissolved by the gastric juice and the food is reduced to a fluid called chyme; it then passes into the intestine, where it is acted upon by the intestinal juice, the pancreatic juice, and the bile; the intestinal juice changes the starch into sugar; the bile being alkaline corrects the acid condition of the food; the pancreatic juice acts upon the oily substances of the food, forming an emulsion called chyle, which is now absorbed by the lacteals and the blood vessels and carried into the circulation.

5. The muscles consist largely of fibers collected into bundles, each covered by a membranous sheath. These fibers are united into still larger bundles lying side by side and surrounded by sheaths. Contractibility is the power which these fibers have of shortening themselves in length and expanding in width, by which means motion is imparted to the body.

7. The cornea, the aqueous humor, the pupil, the crystalline lens, and the vitreous humor. The iris is an internal membrane of the eye lying before the lens. Its function is to regulate the amount of light entering the eye.

SCIENCE OF EDUCATION.—1. The science of education is that science which treats of the principles and truths of education, the development and culture of the faculties of the mind. Pedagogy is the science and art of leading youth up to a worthy manhood, as well as the science and art of teaching. Pedagogics is the principles and rules which pertain to the instruction and training of the young.

2. Attention is the power of directing the mind to one object of thought to the exclusion of all others. Attention is one of the principal elements of thought power. It lies at the bottom of all education. No impression can be made upon the mind without attention. No success in teaching is possible without the power of gaining the attention of the pupils. Usually the attention can be secured by securing the interest of the pupil.

3. A manner or plan of imparting instruction. The method should be in accord with the nature of the mind's action. It should be suited to the age and capacity of the pupils; it should be concrete and should attract attention through the eye as well as the ear. The method should be varied as occasion requires.

4. Deductive reasoning is the process of deriving a particular truth from a general truth (a) By teaching the definition of case, and that only nouns and pronouns have case, and upon what case depends. (b) Induction is the process of going from particular truths to general truths or laws. By teaching the correct use of the pronoun in all its forms, thereby deriving the general definition of case, and the rules which determine the case of a word.

5. Sometimes it is better to teach a rule or definition at first, and then show its application to individual cases; at other times it is better to teach the parts and principles, and then have the pupil formulate a general definition or rule. Generally the latter is the better.

6. They are instruments used in acquiring and imparting information and knowledge.

7. Both are true as far as they go, but neither expresses the whole truth. One may pronounce words at sight and not read in a proper sense—not even understand what he reads. Or one may pronounce words correctly and still convey to the hearer a different meaning from what is intended. Both the definitions are deficient, but the latter is the more so.

HISTORY.—II. (1) The Federal Government has aided the States by giving grants of land, the proceeds being used for public schools. The government has also established a national bureau of education.

(2) The States maintain a system of taxation for school purposes. In many of the states all fines, forfeitures, and license fees imposed on the liquor traffic go to the public school fund. George Peabody gave a large fund to the Southern States for common schools.

(3) District and graded schools are common in the country. A regular system of graded schools, embracing primary, intermediate, and high-schools, exists in the towns and cities. There is a general system of supervision for all the states and territories, and in many instances supervision extends to the counties and cities.

(4) The government is empowered with the right to promote the general welfare and to legislate for the good of the people. The great benefits of a general system of education has become a fixed notion of Americans. The government has a right to make reasonable demands for the benefit of the whole people.

(5) A republican form of government depends upon the intelligence of the people for its existence. The people themselves are the government. A complete knowledge of all the rights and privileges of citizenship best fits a person to enjoy the freedom of a republic. All experience proves that the most stable monarchies are those in which the masses are ignorant. The management of

affairs is in the hands of the few. Intelligence causes distrust and commotion among the common people.

III. (1) Louisiana was obtained from France; Florida, from Spain; Texas, by annexation; California and other Southwestern States, from Mexico; the Territory of Alaska, from Russia.

(2) Each of the foregoing acquisitions was made by purchase except Texas, which joined the Union by annexation.

(3) The acquisitions, with the possible exception of the Gadsden Purchase, have been profitable.

(4) The Louisiana and Florida purchases gave the United States control of the Mississippi Valley, the Great Plains, and the Gulf region. The Mexican territory brought the mining regions and the Pacific slope under the domain of the United States. Alaska added the most valuable seal fisheries in the world.

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

QUERIES.

269. Who was the first American-born citizen elected to office in the United States? W. A. WETTER.

270. What is the epitaph of Daniel Webster? *Id.*

271. What river flows six months one way and six months the opposite way? WM. MCHATTON.

272. When was the national motto "E. Pluribus Unum" adopted, and by whom suggested? E. SCATES.

273. A fox is at a distance a due south of a hound; the fox goes due east, and the hound directly toward the fox. If the hound travels at the rate m and the fox at the rate n per minute, how long will it take the hound to catch the fox? What will be the curve of the path of the hound? E. J. FERMIER.

274. Three towns, A, B, and C, are situated in a plane: from A to B is 8 miles; from B to C is 7 miles; from C to A is 9 miles. L. starts from A to B at the rate of 4 miles per hour; at the same time M. starts from C to A at rate of 5 miles per hour; when will they be nearest each other? J. M. COLAN.

ANSWERS.

262. The Walloons were Dutch Protestants who arrived at New Amsterdam in 1623. Cornelius May was the leader of this company. HOMER MILLS.

The Wolloons were Roman Catholics. See Doyle's United States History, page 158. JOHN FAUGHT.

The Wolloons were Dutch Protestant refugees from Flanders. Ridpath's History, page 161. ED.

263. In 396 B. C., Rome was almost taken by the Gauls, scaling the steep cliff by night. The garrison were asleep, but some geese sacred to Juno gave a timely alarm and the citadel was saved. Marcus Manlius, who was the first to waken, succeeded in throwing several of the first assailants down the cliff, and thus sustained the fortress until his comrades could come to his aid.

E. C. PARRISH.

264. J. Dorman Steele.

C. E. COOPER.

265. It is evident that the ratio of the grains is as 3, 6, and 1.

3 bu. barley @ $62\frac{1}{2}\text{¢}$ = \$1.8756 bu. wheat @ $\$1.87\frac{1}{2}$ = \$11.251 bu. oats @ $37\frac{1}{2}\text{¢}$ = .375

or every 10 bu. cost \$13.50

and there must be as many times 10 bu. as \$13.50 is contained in \$108, or 8 times 10 = 80 bu. Ans. C.

266. Their money is to each other as 3, 4, $4\frac{1}{2}$, and $5\frac{1}{2}$, and the whole may be represented by $1\frac{1}{2}$. Then $1\frac{1}{2} : 3 :: \$121 : \21 , A's money.

 $1\frac{1}{2} : 4 :: \$121 : \28 , B's money.

Similarly C's is \$33.60, and D's \$38.40.

W. A. WETTER.

267. By alligation we find—13 cows @ \$13 = \$169

3 hogs @ \$ 9 = 27

5 sheep @ \$ 5 = 25

21 head cost \$221

B. M. SCOTT.

10 cows @ \$13 = \$130

9 hogs @ 9 = 81

2 sheep @ 5 = 10

21 head cost \$221

W. A. WETTER.

The following lists will also do—14, 12, 11, or 9 cows @ \$13

1, 5, 7, or 11 hogs @ 9

6, 4, 3, or 1 sheep @ 5

ED.

268. Let $7x$ = No. yds. in all. x = price paid by B. y = No. yds. A bought. $7x - y$ = No. yds. B bought.Then $7x^2 + (15 - x)y = 3059$.

$\therefore y = 7x + 105 - \frac{1 \pm 11}{2}$. Here x may be any number that will render y and $7x - y$ both positive. If $x = 29$ y will be 202 and $7x - y = 1$.

Hence A buys 202 yds. @ 15¢ = \$30.30and B buys 1 yard @ 29¢ = .29

Total 203 yds., costing \$30.59

or A buys $4\frac{2}{3}$ yds. @ 15¢ = .70B " $142\frac{1}{3}$ " @ 21¢ = 29.89

Total 147 yds., costing \$30.59

By assuming other values of x an indefinite number of results may be found.Mr. M. Robinson finds—A buys $80\frac{1}{2}$ yds. @ 15¢ = \$12.075B " " " @ 23¢ = 18.515

Total 161 yds., costing \$30.59

ED.

C R E D I T S.

M. Robinson.....	268	Geo. Reiboldt.....	263-5-6
C. E. Parrish	263	J. B. Adams.....	266-7
L. A. Stangle.....	262-5-6-7	W. T. Longwith.....	262-5-6
B. M. Scott.....	262-6-7	B. P. Alexander.....	265-6
John Faught.....	262-3-5	C. La Cope.....	263-5-6
C. E. Cooper.....	262-3-4	Wm. McHatton.....	266
A. Borries.....	265	Seldon Sinclair.....	162-6
"We".....	263	E. Clayton.....	259
Allison Goodwin	265	W. A. Wetter....	266-7
Homer Mills.....	262		

We are in need of some new and interesting queries.

M I S C E L L A N Y.

BUTLER UNIVERSITY opens with a new building and an increased attendance this year.

THE STATE NORMAL has opened with the largest attendance on record, and everything is moving on smoothly.

WHITLEY CO. had its usual big time on *School Day* at the County Fair. A large number of premiums were awarded for efficiency in various phases of school sports.

ROCHESTER has issued its ninth annual report of schools—for 1890-'91. The schools seem to be in good condition. Jas. F. Scull is Supt. and is assisted by a corps of 12 teachers.

PORTER CO. enrolled in its Institute 130, while the number of its schools is only 121. Prof. R. G. Boone was the principal instructor. He was assisted by Messrs. Banta and Belman.

UNION CO.—J. A. Zeller and F. M. Walters were the chief instructors in the Institute this year. All the teachers in the county were in attendance except one, and this one was abroad. This is an excellent showing for little Union.

THE SOUTHERN INDIANA NORMAL, at Mitchell, has opened with a good attendance. J. M. Callan, one of the best penmen in the state, has been secured to take the place of J. W. Stotts, who resigned a few days before the opening of the school.

THE CLINTON CO. Institute was crowded from beginning to close, the attendance surpassing that of any previous institute. The county employs 165 teachers, and the enrollment reached 219. There will be more Reading Circle members this year than there are teachers. Supt. Lydy has arranged a plan for classifying and grading the district schools, and is determined to make it a success.

THE UNIVERSITY PRESS is the name of a very neat 12-page 3-column quarterly published in the interest of Vincennes University. All friends of the school will be interested in it and should take it. It is edited by the principal, E. A. Bryan, assisted by students.

THE HAMILTON CO. Normal this year was one of the most successful summer schools ever held in the county. The enrollment reached 110, and a brighter, nicer company of young people would be hard to find. It was conducted by Co. Supt. Hutchins and J. F. Haines.

OUTLINES of County Institute work, prepared by a committee of Co. Supts. for 1890-'91, is the best "outline" yet made. It is excellent and must prove of great benefit. The committee are Geo. W. Dealand, J. W. Cravens, E. A. Hutchens, A. N. Crecraft, and Geo. F. Felts.

KOSCIUSKO CO. Institute enrolled 236, with an average attendance of 200. The interest increased from beginning to end. Profs. Mace of De Pauw and Clarke of the State University were the principal instructors. A lecture was given every evening. Supt. McAlpine moves things.

DLKHART CO. enrolled in its Institute this year 325 paying members. The principal instructors were A. C. Pierson, of Hiram College, Ohio, and C. D. Hubbell, of New Bedford, O. "The institute was a success—in fact the best ever held in the county" Supt. Ellis should have much credit.

DE KALB CO. had this year its largest and most-successful Institute. Profs. T. J. Bassett of De Pauw, and Charles De Gamo of Illinois State Normal, were the chief instructors. A new feature was an evening sermon by a minister instead of a teacher. Supt. C. M. Merica proposes to make this an annual affair.

MICHIGAN CITY —The Manual for 1890-'91 is at hand and shows the schools in a healthful condition. Supt. Black suggests to the trustees that teachers be required to take up some line of professional study each year, and to give time for this it is proposed to dispense with the frequent written examinations heretofore held. Such a change will doubtless be profitable to both teachers and pupils. A new school building is added this year.

DE PAUW UNIVERSITY opened with its usual large attendance. In a few years De Pauw will have an active endowment of \$2,000,000.00. This will yield a princely sum, but its work and its wants should always outrun its income, and doubtless will do so. President John's sermon in Indianapolis during the session of the American Natural Science Association, on the "Overlap of Science and Religion," attracted much attention, and did the author and De Pauw much credit.

THE Frankfort school board last year ordered from the Indiana School-Book Company between \$300 and \$400 worth of books, but did not put them in the schools. The board made its quarterly reports in good form and in each stated "no books sold." Even since the decision of the Supreme Court the board refused to put in the books on the ground that they were inferior to the standards

and that the court decision did not touch that question. In August the School Book Co. sued the board for the price of the books they had ordered and not used. The Book Co. also gave the board notice that unless the books were used at the beginning of the present school year suit would be brought to compel the use of the books. The outcome of the matter is that the suit was withdrawn and the books go in.

THE MARSHALL CO. Institute this year was the largest yet held in the county, having an enrollment of over two hundred teachers. The instruction was given by Prof. H. B. Brown and Mrs. O. P. Kinsey of Valparaiso, T. J. Sanders of Warsaw, and E. M. Teeple of the Argos schools. The Co. Normal adjourned Friday before the institute with an enrollment of one hundred and twenty-nine. It was conducted by the Co. Supt. The instructors were Jacob Martin, D. F. Redd, and A. J. Whiteleather. * *

LA GRANGE CO. has been noted for years for the high order of its institute work. The most of the work was done this year by Profs. Charman and Everman, of the State Normal, and of course was well done. The enrollment was 155, the largest for years. A resolution was passed unanimously, heartily endorsing Co. Supt. Machan and pledging him hearty support. The teachers vote a tax upon themselves of 50 cents annually, a part of which is to be used in building up a county teachers' library.

HUNTINGTON CO.—Supt. Kline has printed a list of the teachers who are employed in his county for the current year, and gives the number of days each attended the county institute. Every one of the twenty-five teachers in the Huntington schools attended five days. This is a remarkable record, as "city teachers" usually do not think it necessary for them to attend county institutes regularly. Clear Creek township, with nine teachers, also shows perfect attendance, and the general showing for the county is good.

THE GIRLS HIGH SCHOOL, located at 479 and 481 Dearborn Ave., Chicago, is a superior school for girls. The principals, Miss Rebecca S. Rice, A. M., and Miss Mary E. Beedy, A. M., are both ladies of high scholarship and broad culture. They both graduated at Antioch College and were students during the presidency of Horace Mann. Any one having a daughter to send from home to school should esteem it a great favor to place her under the personal influence of such women as Miss Rice and Miss Beedy.

THE NORTHERN INDIANA NORMAL, at Valparaiso, opened with an attendance exceeding that of last year by one hundred. Two new teachers have been employed and several improvements have been made. Mr. Brown in speaking of his school says: "We are not trying to follow any particular school, or any special precedent, but are determined to make ours so thorough that whether people want to accept it or not they will be compelled to do so."

The phenomenal and long-continued prosperity of this school is certainly a strong and unqualified recommendation for it.

MADISON CO. has long been noted for its excellent institute work, but the last was undoubtedly the most interesting and beneficial ever held in the county. One hundred per cent. of the teachers were enrolled. The instructors were Profs. Hodgins, Tompkins, and Griggs. Interesting and well attended evening lectures were given by these gentlemen. In addition to the prescribed Reading Circle books seventy-five copies of Prof. Tompkins' "Science of Discourse" were ordered by the teachers. The influence of this energetic Co. Supt. W. S. Ellis is being felt throughout the county.

SECRETARY.

THE GREENE CO. Institute enrolled over 200. This was the thirtieth annual session, and was characterized by its usual earnestness and enthusiasm. The 200 teachers present, and the many substantial citizens constantly in attendance made an audience that was inspiring. At each of the four night sessions their fine large court room was filled to its utmost capacity, many being compelled to stand. Supt. Moss infuses spirit into all parts of the work. The chief instructors this year were Miss Mavity of the State Normal, and W. F. L. Sanders of Connersville.

SECRETARY.

THE WABASH CO. Teachers' Institute was a complete success in every particular. Prof. Albro of New York and Miss Frederickson of La Porte were the instructors for the week. Prof. Albro's practical work on Psychology, and Miss Frederickson's work on Primary Methods were appreciated by all leading teachers present. On Tuesday and Wednesday evenings occurred the county contest. The premiums given to the successful contestants were valuable books. The contestants were pupils from the district schools; the subjects, Arithmetic, Declamation, Drawing, Essay, and Oration. Prof. Albro's lecture on the "Education of Indians" was good.

SECRETARY.

JEFFERSON CO.—The Institute enrollment reached 275. The workers from abroad were W. B. Owen of Edinburg, and Miss Alta Blackmore of Aurora. The home helpers were Miss Maggie Maloney, F. D. Churchill, and R. F. Evans. The interest was good to begin with, and it steadily grew until by Wednesday noon it was at a white heat. Miss Blackmore proved herself to be a rare worker. The teachers of Jefferson county are awake. A Co. Association of two days will be held on Friday and Saturday following Thanksgiving day. Co. Supt. Amsden knows how to manage things.

SECRETARY.

PURDUE UNIVERSITY is fast becoming one of the strongest and best equipped technical schools of the West. It has made very rapid progress in the past four or five years and is still strengthening itself in many ways. It is increasing in favor with our home people and has an enviable reputation abroad. This year it has already enrolled one hundred and thirty-six Freshmen, and President Smart reports that this is the strongest class that he has ever had.

The University has recently received a large addition to its endowment through the operation of the new Morrill bill, which will enable it to make still further improvement. All friends of the institution will rejoice with it in its new prosperity.

P E R S O N A L .

Geo. E. Long will continue to hold the fort at Colfax.

J. B. Lemasters has charge of the schools at Trafalgar.

Geo. M. Teeter is principal of the schools at Pennville.

J. E. McCartney is superintendent of the Bristol schools.

C. M. Leib has entered on his fifth year as Supt. at Lima.

Edward Boyle is principal of the Michigan City high-school.

Elmer E. Meredith is principal of the Rochester high-school.

J. V. Zartman is superintendent of the schools at Worthington.

John L. Cravens has begun his eighth year as principal at Linton.

A. Jones is principal of the Marion Normal School, and is making a good start for this year.

H. W. Monical succeeds F. B. Dressler as principal of the Princeton high-school for the coming year.

Emma Robinson, of Medaryville, has accepted the principalship of the high-school at Winamac—a worthy promotion.

A. N. Crecraft, Supt. of Spencer county, who was on the sick list all summer, is now convalescent and at his post of duty again.

E. E. Slick, a graduate of the State Normal School, will teach physics and chemistry in the Terre Haute high-school this year.

J. A. Hindman, Supt. of Blackford county, requires monthly reports of his teachers, which include a synopsis of the educational reading done.

Mrs. Hannah Davis, for so many years a teacher in the Spiceland Academy, is spending this year at Michigan University studying Literature and Botany.

A. C. Fleshman, late principal at Crothersville, has accepted the principalship of the schools at Winchester, Ky., where his school will be in an elegant new building, and he will have seven teachers.

J. L. Rippetoe, for so many years superintendent of the Connersville schools, is still in charge of the schools at Trenton, Mo. He reports everything prosperous, but he does not forget his Hoosier friends.

J. B. Starkey has entered upon his 15th year as superintendent of the Martinsville schools. The schools are *full* and prosperous. Supt. Starkey is building a new house which he will move into soon. *Good.*

J. W. Love, a well known and highly respected Indiana teacher, who for the last two years has had charge at Lebanon, Ky., is now superintendent at Le Mars, Iowa, at a salary of \$1400, with a corps of 19 teachers.

A. J. Whiteleather, a graduate of the State Normal, and for several years principal of the Bourbon schools, has been elected principal of the normal department of the Upper Iowa University, located at Fayette, Iowa. Indiana regrets to lose such teachers.

A. C. Goodwin, an old Indiana teacher and superintendent, but for several years past superintendent of the schools at Owensboro, Ky., will continue in

His old place and has started the new year prosperously. W. A. Hester, another Indiana teacher, is his first assistant.

Prof. James Monteith, author of Monteith's Geographies, died September 11. His name has been a household word throughout the country for many years. Prof. Monteith was eminently a self-made man, as his school education did not extend beyond the common branches.

T. D. Aker will continue in charge of the township graded school at Stone's Crossing. This is perhaps the only school of three departments in the state which pays to its principal \$100 per month. This fact is complimentary to the trustee, the community, and the principal.

B. F. Johanson, Supt. of Benton county, is happy. He owns 160 acres of excellent land, and the 115 acres that he has this year in corn will yield an average of 50 bushels to the acre. When he thinks of this yield and then of the price corn bears this year he is really—good looking.

A. G. Alford, a supervising principal of the Indianapolis schools, and well known as an institute instructor, has an excellent lecture on "Ben Hur." It is illustrated by stereopticon views and is said to be both interesting and instructive. If you want Mr. Alford in your lecture course write to him.

H. B. Brown, principal of the Northern Indiana Normal School, was offered the Democratic nomination for Congress in his district, but he declined. He says that he has no higher ambition than "to build up an institution that will be worthy the confidence and respect of the best people everywhere."

O. S. Cook, of Chicago, who for several years past has had charge of the western business of Silver, Burdett & Co., has been promoted and removed to the home office at Boston. Mr. Cook is one of the best known and one of the most genial men in the book business. His successor at Chicago is Mr. Robt. Foresman.

A. M. Sweeney, formerly Supt. of Dubois county, secured the nomination for the office of Clerk of the Supreme Court at the late Democratic convention. Mr. Sweeney, four years ago, got the nomination for State Superintendent, but was defeated with his ticket. The Journal is always glad to see school men receiving recognition. If elected he will make a good officer.

W. H. Mace, one of the professors in the De Pauw Normal last year, has decided to spend this year at Cornell University, extending his already extensive knowledge of history. Indiana contains but few better school men than Mr. Mace, and if our Indiana Colleges let him get away they will make a mistake that will be against the state's best interests. His friends can address him at Ithaca, N. Y.

Cyrus Smith, who is so extensively and so favorably known to Indiana teachers, was married September 10, to Mrs. Ella W. Noble, of Iowa. The bride is a lady of superior accomplishments, and resigns a high and responsible place as teacher to enter this new field of instruction. The Journal extends to Mr. and Mrs. Smith hearty congratulations, and in so doing echoes the sentiments of countless Indiana friends.

Hervey D. Vories, Supt. of Johnson county, secured the nomination on the Democratic ticket for Superintendent of Public Instruction. To succeed in the face of such active competition speaks well for the energy and push of Mr. Vories. He was born in Johnson county in 1855, and has just entered his 35th year. In 1880 he graduated from the classical course of the Northern Indiana Normal School. He made a good record as a student and the principal of the school, H. B. Brown, speaks of him in the highest terms. He taught till 1885, when he was elected to his present position. Mr. Vories has made an active, energetic county superintendent, and if elected State Supt. will leave no stone unturned to make his work there a credit to himself and the state.

James H. Henry, Supt. of the Morgan county schools, was nominated for the office of Superintendent of Public Instruction by the late Republican state convention. He was born in 1861, at Harrison, Ohio, but his parents moved to Morgan county, Ind., when he was but two years old, so he is almost as good as a native Hoosier. He graduated at the Martinsville high-school. He began teaching at the age of sixteen, and was for two years principal of the Morgantown schools. In 1883 he attended the State Normal School. In 1885 he was elected to his present position. Mr. Henry has made a good superintendent and has been an active member of the State Supts. Convention. He is the father of the County and Village Section of the State Association. He is one of our most active, energetic men, and makes a success of whatever he undertakes.

BOOK TABLE.

OUR TIMES is the name of a new paper "designed to help teachers and pupils in the study of current events," published by E. L. Kellogg & Co., of New York.

THE FARMERS REVIEW, published in Chicago, is a paper designed for the general farmer. It treats of all the subjects usually treated in a good agricultural paper. Price \$1.25 a year.

THE BREEDERS' GAZETTE is a weekly Live Stock paper published in Chicago. It is the leading paper of its class in the North-West, and is of great value to any one interested in raising stock.

HARPERS' WEEKLY is the leading illustrated literary weekly of this country. Geo. William Curtis is the editor, and this statement alone insures high literary merit. It is richly worth its price, \$4.00.

THE ARENA, edited in Boston, is what its name indicates—it is a "free lance" on all social, religious, and political questions. The ablest writers are employed and the live questions of the day are discussed in a most attractive manner.

MRS. GRANT'S LITERARY WORK—Mrs. Ulysses S. Grant has been induced by a New York editor to tell the story of her courtship with General Grant, and the warrior's proposal to her, and the article will appear in the October number of *The Ladies' Home Journal*.

WEBSTER'S INTERNATIONAL DICTIONARY: *Edited by Noah Porter, D. D., LL. D., of Yale University. Published by G. & C. Merriam & Co., Springfield, Mass.*

This is the legitimate successor of Webster's Unabridged Dictionary. The "International" is, in fact, the popular "Unabridged" thoroughly re-edited in every detail, and vastly enriched in every part, with the purpose of adapting it to meet the larger and severer requirements of another generation.

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Work having direct specific reference to the publication of this Dictionary has been *in process for over ten years*. The staff of paid editorial laborers has numbered *not less than one hundred persons*. Besides these, a large number of interested scholars have freely contributed in important ways. Within the ten years that the work has been in progress, and before the first copy was printed, *more than three hundred thousand dollars* was expended in editing, illustrating, typesetting, and electrotyping. It is a magnificent book, and is a credit and an honor to its editor and the publishers.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 170 State street, Chicago. We can assure all who write of confidential and honorable treatment.

See Jonathan Rigdon's adv. of his new Grammar on another page.

TO KNOXVILLE, TENN.—Excursions via The Pennsylvania Lines.—For the Veterans' Reunion at Knoxville, excursion tickets will be sold from principal stations of The Pennsylvania Lines at one fare for the round trip, on October 4th, 5th, and 6th. 10-11

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NO. 31.

REPORT OF COMMITTEE ON CONSTITUTION.

To Members of Indiana State Teachers' Association, Indiana Collegiate Association, High School Association, and County and Village Association:

THE form of Constitution herewith presented, according to a resolution in the Indiana State Teachers' Association, "Shall be the basis of action by which the Association shall determine its Constitution." The original has been followed as closely as possible, making such changes as the recent practices indicated were desirable. In providing for the Sections, the committee recognize the fact that neither of the three is at present a part of the Indiana State Teachers' Association under the constitution, the Collegiate Association being entirely independent, and the other two having only a nominal connection; but it is hoped that this plan will give to each all the advantages that it now has, and at the same time give its members opportunities to attend the general association and the other sections, and also give greater unity and strength to the educational forces of the state.

Attention is called to the proposed substitute for ART. XI., SEC. 2; and also to the accompanying letters from our neighboring states of Ohio and Illinois.

CONSTITUTION OF THE INDIANA STATE TEACHERS' ASSOCIATION.

PREAMBLE.

As harmony and concert of action are highly necessary for the thorough and entire accomplishment of any important purpose, and believing,

that it is especially so in the department of education, we the enrolled teachers and other friends of education, as a means of elevating the profession of teaching and of promoting the interests of schools in Indiana, associate ourselves together under the following

CONSTITUTION.

ARTICLE I.

This organization shall be styled THE INDIANA STATE TEACHERS' ASSOCIATION.

ARTICLE II.

The officers of this Association shall be a President, seven Vice-Presidents, a Recording Secretary, a Permanent Secretary, a Railroad Secretary, and an Executive Committee of seven. All to be elected as provided in Article X. of this constitution; and all, except the Permanent Secretary, to serve for a period of one year and until their successors are chosen. The term of office of the Permanent Secretary shall be during the pleasure of the Association.

ARTICLE III.

It shall be the duty of the President to preside at all meetings of the Association, and perform all the functions usually belonging to such office. In his absence, or at his request, one of the Vice-Presidents shall take his place.

ARTICLE IV.

The Recording Secretary shall keep a fair and full record of all the proceedings of the Association, which record shall be subject to correction by the Executive Committee.

ARTICLE V.

SECTION 1. The Permanent Secretary shall be *ex-officio* Treasurer of the Association. He shall receive and keep all funds belonging to the Association, and pay out the same only on order of the Association or Executive Committee. He shall keep in a book an intelligible account of all money received and expended, and carefully file all vouchers for the distribution of the money of the Association, and shall annually report the condition of the finances.

SEC. 2. He shall keep all permanent records and other property of the Association; shall collect statistics of the members and record the

same in a book prepared for that purpose; and shall perform such other duties as the Association shall require of him.

SEC. 3. For all the services required of him, the Permanent Secretary shall receive such compensation *per diem* as the Executive Committee may direct.

ARTICLE VI.

SECTION 1. The Railroad Secretary shall make all necessary arrangements with the railroad authorities for the transportation of members to and from the Association, and shall endorse the return certificate of enrolled members only.

SEC. 2. He shall receive for his services such sum as the Executive Committee may direct.

ARTICLE VII.

SECTION 1. The Executive Committee shall carry into effect all orders and resolutions of the Association, and shall devise and put into operation all measures not inconsistent with its design, as said committee shall deem best. It shall secure speakers and arrange business to come before the Association. It shall hold its first meeting as soon after election as possible. Four members shall constitute a quorum; and may meet from time to time on their own adjournment.

SEC. 2. In preparing the program, the Executive Committee shall provide for one or more half days of the session for separate work in the following Sections, viz. :

1. Elementary.
2. High School.
3. Collegiate.

SEC. 3. The programme of the Sections shall be prepared by committees from the several sections, and reported to the chairman of the Executive Committee.

ARTICLE VIII.

The several Sections shall provide their own officers and furnish a transcript of their proceedings to the Permanent Secretary of the Association, who shall record them.

ARTICLE IX.

SECTION 1. Any teacher or other active friend of education may become a member of the Association by filling out the required blanks and paying the initiation fee.

SEC. 2. The initiation fee for gentlemen shall be one dollar, for ladies fifty cents. The annual fee shall be fifty cents, to be paid each year that the member attends the Association.

ARTICLE X.

The meetings of the Association shall be held annually in the latter part of December.

ARTICLE XI.

SECTION 1. A nominating committee shall be constituted, which shall consist of one member from each congressional district in the state.

SEC. 2. Each member of said committee shall be nominated by some member from his district, and when so nominated shall be confirmed and approved by the Association. If any congressional district has no representative in the Association, that district shall not be represented on the committee.

SEC. 3. Said committee shall nominate the officers for the Association, and said nominations shall be subject to confirmation by the Association when reported by the committee.

ARTICLE XII.

This Constitution may be altered or amended by a majority of the members present at any regular meeting of the Association.

D. E. HUNTER,
JOSEPH CARHART, } *Committee.*
S. E. HARWOOD.

SUBSTITUTE FOR ARTICLE XI., SEC. 2.

Each member of said committee shall be selected by members of the Association from his district, sitting as a committee for that purpose; and such selection shall be reported to the President of the Association, who shall announce the committee. Any question as to the validity of the nomination reported by a district committee, shall be referred to the Executive Committee, whose decision shall be final.

[The letters from Ohio and Illinois, referred to above, are omitted for lack of space. Both heartily endorse the idea of College Associations being a part of the State Teachers' Association.]

THE ADAPTATION OF LITERATURE TO THE PRIMARY GRADES.

BY CHARITY DYE.

"THE free adaptation of a subject to the child" is said to be "the essence of all teaching." This statement seems simple at first reading, but

it will bear study. To speak of the adaptation of a subject to a child is to assume that one knows something of that subject in its various phases and possibilities, and something of the child in his activities of body and mind. This much known, a good fund of common sense is still required to make the adaptation complete and put the subject and the child into vital connection.

The necessity of presenting the poetic side along with the fact side in the early stages of nature teaching has been shown, and books such as "Seaside and Wayside" have been written from that point of view. The presentation of the poetic side can be carried into word getting, and as soon as a pupil has learned twelve words we can begin to give him true literary culture by bringing his mind into contact with portions of permanent literature, properly adapted to his mental state. The giving of literary culture is a slow process and can not be commenced too early. It is brought about by sowing a seed thought to day, following it with a suggestion to-morrow, leaving it to sprout in time and silence, and then providing the elements that will send the root down, the stem up, and in due season produce the blossom. These elements are the literary artifacts of the masters and must not be translated into the common place, if they are to bring about the expected results. For example: If in teaching the first stanza of "The Planting of the Apple Tree," we let the pupil stop with saying, "It means to dig a big hole in the ground with the spade," we have defeated our purpose; but if we lead him on and show him the surpassing beauty of the poetic expression,—

"Cleave the tough green sward with the spade;
Wide let its hollow bed be made,"

and have him learn this expression, then we have done him a real service, and he will prefer the poet's way of saying it to his own.

This literary culture of which we speak, will place the child in an atmosphere of the good and the true and the beautiful, and every part of his nature may be influenced thereby. His imagination, the constructive faculty, for which we do so little, is cultivated by the fairy tale and he learns that its meaning is true. Stories nourish his social instinct by increasing his sympathy and enlarging his circle of friends till neither "far away" nor "long ago" can separate him from them. Accounts of heroism stimulate his will till self-sacrifice seems easy, his heart craving for a hero is satisfied and he has an ideal to reach. History develops

his judgment by compelling him to form standards of action when deciding between the right and wrong of the deeds done by men and nations. Nature-prose and poetry show him new beauty in the grass and glory in the flower. All these phases of the work leave an indelible impress upon the mind, make for power in the individual, and character building is the result.

Good literature is religious in its essence. Could any one ever really study Bryant's "Water Fowl," Whittier's "Eternal Goodness," Longfellow's "Resignation," and Emerson's "Problem," without receiving the deepest lessons in religion? It is as Literature that the Bible is to re-enter our schools. It must be along this line that the oft repeated phrase, "The Godless Public Schools," is to be dropped. This phrase is odious to every one who looks upon the public schools as the nursery of our country's Future. Let us remove the cause for the charge implied; it may at present be partly just.

Literature has hitherto been set apart for the High School and the Academy instead of being introduced into the first grade with the primer as it should be. We wonder when pupils in second year of high school make no response upon being asked to what the expressions "Sinless Teacher," "Pallas Athene," or "Magna Charta" refer. Who is to blame? The pupil is not; he has followed the course; then the course is faulty in not providing for a free adaptation of the subject to the pupil. We have either had no convictions upon this subject or the courage of our convictions has not been strong enough to bring about a change. We wait until a pupil is quite advanced and then put into his hands for study the writings of our modern authors—authors whose references may come from any period along at least forty centuries of literature. A free adaptation of this subject to the pupil from the first grade up would put him on another footing when he reaches the formal study of Literature in the High School. He would then have a slight acquaintance with the authors and some notion of Mythology, History, and the Bible, without which no modern masterpiece can be understood. Classic writing can supplement the subjects of Language, History, and Geography as the work advances. Is there a better time to give Irving's "Legend of Sleepy Hollow," "Rip Van Winkle," and portions of "Knickerbocker's History"—than when studying the history and geography of New York? Does not his "Westminster Abbey" come in as supplementary reading

when studying the geography of England, and his Spanish papers when studying Spain? Whittier's Poems are a commentary upon United States history.

All selections should stand the tests of good Literature, some of which are:—

1. It is pure in tone and language.
2. It tends towards elevating the child's nature by placing him in an atmosphere of the good and the true and the beautiful.
3. It furnishes ideals by stimulating the reason to higher motives and the will to higher acts.
4. It is broad enough to enlarge the mind.
5. It contains the principles of right doing.

All of these tests may be unconscious to the child; but the teacher must judge for him and be a providence to him. This work should be a pleasure, and it always will be if the quantity and quality are adapted to the advancement of the grade and the teacher invariably stops before the interest lags. The mark of success will be in the children's faces. They tell the story. Let us study them; mental starvation tells in the face almost as soon as bodily starvation. We have seen faces that at first looked like empty houses, soon show signs that some one lived there.

Objections can no longer be made that material is not at hand, since John Alden and the "Riverside Literature Series" furnish the best writings of the best authors in so cheap a form. One teacher says, "It is difficult." That is true, unless one is wise first to select, then to adapt; but if one can not do this, let him use the work that is made ready by others. There are plenty of helps. Another says, "I do not know the best." One can begin at once to study; if one is too old to learn, he does not belong in the teachers' ranks—this condition might be an occasion for self-improvement. It is asked, "Would you use the Readers?" Yes, wisely; they have much in them that is valuable and helpful, but I would not teach everything in any Reader. Every teacher should reserve to himself the right to exercise his common sense in the use of text-books.

Much has been done in the work herein set forth; there is a Literary movement going on in wide-awake places; but there is much yet to do. We must have a rational plan of procedure and adhere to it; we must see the whole course from its small beginning to the end, and know how and where our particular work fits in.



Let us bear in mind that education is represented by a spiral rather than by a circle going round in a groove, and that we must ever mount, looking back as each round in the ascent is reached, on what is below in a new and broader light.

We give below an illustration of what we mean by adapting Literature to the Primary Grades, beginning with the first. When through with this series of lessons, properly led up to by giving beforehand the necessary words, let us see what has been done for the pupil. He has been exercised in continuity of thinking. He has made the acquaintance of a standard author. He has been introduced to the permanent in Literature and has made his own, portions of one of the sweetest songs in our language. He has reverently come to know the Indian, and is ready for studying the period of discovery in United States History. He has had lessons in Indian mythology, beginning with the near and paving the way for the mythology of our Saxon forefathers, the Greeks, or that of any other ancient people.

H I A W A T H A . I.

Hiawatha was a little Indian boy. He lived with Nokomis. Nokomis was his grandmother. They lived in a tent.

NEW WORDS: Hiawatha—Nokomis—Grandmother.

[NOTE.—The other words in this lesson have been previously given. One whole lesson of deep interest can be given to the word "Indian," and one to the word "tent."  A busy-work exercise could follow the word tent by having pupils make tent out  lines with their sticks.]

II. HIAWATHA'S CRADLE.

Hiawatha had a cradle,
It was a little linden cradle,
Bedded soft in moss and rushes,
Safely bound with reindeer sinews.

NEW WORDS: Moss—rushes—bedded.

[NOTE.—All other words in lesson, previously given. A whole lesson could be given to "cradle"—showing and making pictures of the various styles of cradles used by Indians. A separate lesson also on the word "reindeer."]

III. HIAWATHA AND NOKOMIS — Part I.

Nokomis nursed little Hiawatha,
Rocked him in his linden cradle,
When he cried, she said unto him,
"Hush! the Naked Bear will hear thee?"

IV.

HIAWATHA AND NOKOMIS.—Part II.

Nokomis sang to Hiawatha. She taught Hiawatha to sing. Hiawatha sang about the fire-fly. He sang this little song:—

“little fire-fly,
Light me with your little candle,
Ere upon my bed I lay me,
Ere in sleep I close my eyelids.”

V.

HIAWATHA'S TENT OR WIGWAM.

“By the shining Big Sea Water,
Stood the wigwam of Nokomis,
Dark behind it rose the forest,
Rose the black and gloomy pine trees,
Rose the firs with cones upon them;
Bright before it beat the water,
Beat the clear and sunny water,
Beat the shining Big Sea Water.”

VI.

WHAT THE WATER AND THE PINE-TREE SAID TO HIAWATHA.

“At the door on Summer evenings
Sat the little Hiawatha;
Heard the whispering of the pine-trees,
Heard the lapping of the water,
Sounds of music, words of wonder;
‘Minne-wawa!’ said the pine-trees,
‘Mudway-aushka!’ said the water.”

VII.

HIAWATHA AND THE BIRDS.

“Then the little Hiawatha
Learned of every bird its language,
Learned their names and all their secrets,
How they built their nests in Summer,
Where they hid themselves in Winter,
Talked with them whene'er he met them,
Called them ‘Hiawatha's chickens.’”

VIII.

THE STORY OF THE RAINBOW.

Hiawatha

Saw the rainbow in the heaven,
In the eastern sky, the rainbow,

[He] Whispered, What is that, Nokomis?
And the good Nokomis answered,
" 'Tis the heaven of flowers you see there;
All the wild flowers of the forest,
All the lilies of the prairies,
Whelp on earth they fade and perish,
Blossom in that heaven above us."

Illustrations might be multiplied indefinitely. The reader will notice that the poetic form was brought in early; there is where the Literary culture is to begin. Do not try to explain away everything in a poem. We have only given a suggestion; other parts of *Hiawatha* are just as beautiful and as suitable. The Story of the Moon, the "Four Winds," giving each of four children a part; the story of "Mondamin, the friend of man," of the dandelion, Hiawatha's visit to the Arrow-makers, Hiawatha's fasting, and others. These are parts of this poem that belong to Fifth Reader work, and in mixed grades in the district schools it can be divided to suit the various classes.

If we begin this work in earnest light will break.

"Ere perfect scheme of action thou devise
Will life be fled."

THE A B C'S OF JESUS—II.

BY HUBERT M. SKINNER.

We all remember with pleasure the pictorial alphabets of our childhood—the ax, box, cat, dog, etc., in the order of their initials, each vignettted about its handsome capital. Such delineations are aids to the childish eye and ear in fixing upon the memory the names and the phonetic values of the otherwise cabalistic and meaningless letters.

Suppose the letters themselves were the pictures of the objects, so that, instead of saying, A is for ax, B for box, etc., we should say, A is ax, B is box, etc. Suppose, further, the names of the letters were not the apparently arbitrary appellations we give them, but were the names of the objects pictured. In such case the letters would be recognized by a child at first sight, without effort, and we should have an alphabet more similar in its nature to that in the picture book of the child Jesus. How do we know he had a picture book? Because *all* the Hebrew books

were picture books. The letters themselves were pictures—not beautiful and accurate drawings, but crude and child like outlines, befitting the childhood of the race; and some of these had lost, in the course of time, much of their resemblance to the original objects depicted.

The first picture letter was not an *ax*, but an *ox*, or *aleph*. It was at first like an *O* or *V* with a bar across the upper half, thus forming a rude outline of an ox's head and horns.

The second was a house, or *beth*. We find the word in the name Bethlehem, which means house of bread, and in Bethel, which signifies house of God. Aleph and beth took the forms *alpha* and *beta* in the Greek, and from them we derive the word *alphabet*, which thus comes originally from *ox house*.

The letters which Jesus read may be found in Webster's Unabridged Dictionary, on page 1851, in the first column, under the head of Chaldaic Letters. Without placing too much confidence in the "conjectural originals" there presented (for eminent scholars have suggested seemingly more probable ones than some of these), it is interesting to note how the old alphabet grew from its quaint originals, and to gather hints of old-time life therefrom. Look, for instance, at *beth*. It was an Eastern house, of an almost rainless clime, and apparently open on one side, like the great, luxurious porches we so much enjoy at the sea side—though having, doubtless, inner and more secluded apartments. It gives us somewhat the idea of a *booth*—and, indeed, it has been suggested that the latter word may have come from the same root.

Gimel was a camel, the letter representing the animal's head and neck. There was neither horse nor dog, the animal favorites of men in later ages; the ox, the camel, and the fish alone appeared. Simple indeed must have been the life of the people with whom the alphabet originated.

Daleth, a door, was at first a triangle. This, I think, points unmistakably to the door of a tent. From this letter comes the Greek *delta*, with which we are all familiar in its geographical application. Our script *D* is often carelessly made exactly as its prototype was probably made thousands of years ago, in Syria, in Greece, in Egypt, and elsewhere.

Of articles of ordinary use we find a basket (*teth*), a nail (*vav*), a weapon (*zain*), an ox-goad (*lamed*), and the scythe (*tsaddi*). The basket, or hammer, is not provided with an arched handle over the top, but with side fastenings, better adapted to its use for a camel's load. These bas-

kets carried the treasures of the ancient nations, the land commerce of the world. To a Jewish child the letter must have often recalled the

"the bulrushes round little Moses
On the old banks of the Nile."

The dangerous-looking weapon brings to mind the story of Ehud, who "made him a dagger which had two edges of a cubit length," and "did gird it under his raiment, upon his right thigh, and brought the present unto Eglon, king of Moab: and Eglon was a very fat man." When Ehud stabbed the obese ruler, "the haft went in after the blade, so that he could not draw the dagger out."

If the dagger in the alphabet recalled to the Jews the bold regicide of the left-handed man, so also the nail has brought to mind the deed of Jael, who invited the hapless fugitive Sisera to her tent, and gave him milk, and covered him with a mantle for his sorely needed rest. "Then Jael, Heber's wife, took a nail of the tent, and took a hammer in her hand, and went softly unto him and smote the nail into his temple and fastened it into the ground; for he was fast asleep and weary. So he died."

Some of the readers of the Journal may remember, with a smile, the mistake of Fanny Fern, who, in a characteristic Fern Leaf upbraids the murderer of the fleeing *Jael*; and not a few will recall the severe strictures of Macaulay upon "the matron who, in defiance of plighted faith, and of the laws of Eastern hospitality, drove the nail into the brain of the fugitive ally who had just fed at her board, and was sleeping under the shadow of her tent."

If such were the historic associations inculcated with the letters in the mind of the child Jesus and of the children of his time, other associations were not wanting to His disciples in later years. Probably the great Apostle of the Gentiles never used the letter *iamed* without recalling the words which came to him from the brightness above the noonday sun, and proceeded from no human lips: Saul, Saul, why persecutes thou me? *It is hard for thee to kick against the goads.* And who was there among the apostles that could look upon *tsaddi*, in its ancient form of a blade for grain, without hearing in his heart the admonition of St. John, re-echoed from Joel of old—Thrust in thy sickle; and the words of Jesus spoken in the Samaritan land: Say not ye, there are yet four months, and then cometh harvest? behold I say unto you, Lift up your eyes, and look on the fields; for they are white already to harvest.

PRIMARY DEPARTMENT.

[Conducted by HOWARD SANDISON, Professor of Methods in the State Normal School.]

TWO KINDS OF READING.

SOMETIMES difficulty arises in understanding one who is explaining work in Reading, from the fact that the one explaining it—or those being addressed—do not make a careful distinction between:—

1. The act of reading in order to obtain *increased ability to gain meaning from language*; and,

2. The act of reading in order to *obtain the meaning*.

If we confuse the act of reading with the act of learning to read, it changes a great many things in the work. If a man takes a magazine to read an article, the reading that he does is reading in order to obtain thought; and in that case he is justified in studying not only the language but in examining any pictures that accompany the language; in seeking the meaning of words in the dictionary; in examining articles on the same subject in cyclopædias, etc. These means are justified by the fact that he is reading in order to obtain meaning. If a class in school is dealing with a given selection, it does not have its attention turned upon it in order to obtain the meaning. The case in school work is one in which the child is reading, in order to learn to read. This is quite a marked distinction. The one who is reading the magazine article has already learned to read in school. He is reading in order to comprehend the meaning. This is, it is true, the ultimate aim of all reading work. In school work, however, in dealing with a reading selection the aim is not an ultimate, but a preparatory one.

In dealing with an exercise in a reading lesson, the teacher's effort is to train the child to read it; i. e., to confer upon him the ability to obtain the meaning from this and other selections, and the exercise is intended for that purpose.

A teacher in preparing to teach reading in any of the schools should have very clearly in mind the distinction between reading in order to obtain meaning, and reading in order to learn to read. The reason that he should clearly grasp this distinction is that his attitude upon this point influences so largely the way he approaches and deals with the problem of reading. If he understands in regard to any selection that he is to

have the children examine it in order to reach the meaning that is in it, he feels justified in leading them to reach it by various means that would not be justifiable according to the view that his effort in the reading work is to bring it about that the child shall come out of the exercise with largely increased power to reach meaning by his unaided effort through language alone. As said in the preceding, this is a distinction that is not always made. It is, however, both a simple and a fundamental distinction. It is a distinction which a teacher in any school or grade can understand,—and it is one that is applicable to any series of readers. Let the teacher then first make clear this distinction:—

1. That there is a reading the purpose of which is *to reach the meaning*.
2. That there is a reading the purpose of which is *to confer power to obtain meaning from language itself*. This second kind is that with which the schools should concern themselves; especially in the first few grades. The statement of this distinction may give rise to the inquiry: "Is this the assertion that in the reading work the teacher is not to give prominent attention to the meaning?" In answer it is to be said that such is not the idea. If the teacher conducts the reading for the purpose of conferring ability to read, and not for the direct purpose of comprehending the thought, he will need to attend to the thought as closely if not more closely than he would need to if he were directly seeking the thought; and his class will doubtless have a clearer grasp of the thought. The point advanced is not that there is one kind of reading in which the thought is closely attended to, and another in which it is not. The idea urged is that there are two kinds of reading, or the basis of the direct aim. In one kind, the work is conducted in order to have the pupils obtain the meaning in the language. That is the direct aim. In the other kind, the work is conducted not primarily in order to obtain the meaning, but in order to obtain increased ability, to comprehend meaning through language. The actual reaching of meaning is an incident of the attempt to gain ability to interpret language.

In many of the selections of reading books, the thought is of but little if of any value, as thought. Its value consists in ability gained by the child in his attempt to reach it by means of the language. The thought as thought is not the end, in the act of learning to read, and no teacher who has thought carefully about it would make it the main aim. He would, rather, lead the child in studying the selection, to obtain the

thought for the increased ability to get thought in other exercises that would arise from getting it in this one.

The instant that the teacher who is attempting to teach the child to read, comprehends that the aim is not meaning, but power to gain meaning, his mode of work is made to correspond. In reading the article in the magazine, one is brought into contact with a valuable thought, and he reads in order to make that thought a permanent possession of himself; but such is not the case in the process of learning to read. If then one asks, "Would you emphasize the thought in reading work?"—the answer is—"Necessarily, if good work is done." Good reading work makes the thought very prominent—but the obtaining of the thought is not the aim; it is increased ability to reach that through language alone.

Determining everything through the language itself is the distinctive element in learning to read. To make the child gain from day to day increased power to reach the meaning of a paragraph from the paragraph itself, is the central idea. When the child is able to get from a paragraph itself all shades of thought that it expresses, he can read the paragraph; but if he obtains the various shades of meaning through the teacher's help, pictures, stories, and outside things, he does not read the paragraph. He comprehends the thought that is in the language, but he has not read, and, perhaps, can not read it.

This view of the function of reading work in school is the ground of the following educational inferences:

1. The mastery of the system of diacritical marking is not an element in learning to read. This system should be taught just before beginning to use the dictionary, and for the purpose of giving facility in using it.
2. The dictionary should not be used to determine the pronunciation or meaning of a word in a reading lesson, until a very careful attempt has been made to decide these from the language itself.
3. The attempt should not be made to suggest the meaning to the child by analogous stories.
4. The pictures that accompany the reading lessons should not, when dealing with connected sentences, be employed as a means of determining the thought. They were placed in the book to be so used, it is true, but that fact does not prevent their use from being erroneous. They are valuable in teaching the meaning of single words in the primary work

that precedes the lessons involving connected sentences, but their use in aiding to gain the meaning of sentences when arranged in paragraphs weakens the child's power to read.

SUGGESTIONS FOR OPENING EXERCISES

THE aim of *opening exercises* in the public schools is to assist in leading the child to an understanding of right and wrong, to a desire to do the right and avoid the wrong, and, by means of these two, to the determination to regulate his conduct accordingly. Throughout the work of the day, this aim appears incidentally. A reading or history lesson may furnish matter which tends to the accomplishment of this purpose. A breach of discipline sometimes affords opportunity for ethical training for the entire school. The first fifteen or twenty minutes of the day, however, constitute the only time regularly set apart for such instruction, and this short period may be made productive of gratifying results, both in and out of school.

A common defect in conducting morning exercises is the mechanical way in which they are performed. Teacher and pupils sometimes go through certain forms at the opening of school with little or no thought as to their meaning. Such exercises are valueless. The principle of mind that interest is the basis of attention is too prominent here to need comment. Lack of interest may be due to lack of variety. The best of exercises would become tiresome if pursued every morning for a week. Hence a frequent change is essential.

In this phase of the school, as in every other, the pupils should do the most of the work. This is in accord with the principle that the mind grows most by its own greatest activity. Free discussion by the children of the points taken up should be the prominent feature in conducting opening exercises. Whatever the device for suggesting a question of right or wrong, the pupils should give the explanations, with illustrations both imaginary and from their own experience, guided by as careful questioning on the part of the teacher as he uses in any other phase of his work. The children should be led to consider the points presented as thoroughly as they consider a point in geography, looking at it from all standpoints of their experience. They will become skillful in making practical applications. For example, the verse, "Cast thy bread"

upon the waters; for thou shalt find it after many days," suggested to one little girl, not only that our actions are like the seed that the Egyptians sowed on their river and reaped long afterward, but that, unlike them, we often sow without knowing it.

The memorizing of Bible verses that can be easily interpreted can be introduced in the lowest grade and continued, in subsequent years, with passages of greater difficulty. Some teachers adopt the plan of taking a verse for each letter of the alphabet, spending one or more mornings on the study of each verse and afterward recalling its meaning at various times to make sure that the words are not a mere form. It will be seen that the study of such a verse as, "A soft answer turneth away wrath; but grievous words stir up anger," will lead to practical results in the pupil's conduct.

Another exercise that can be used in all grades is the consideration of what are sometimes called "the school-room virtues," as Silence, Industry, Attention. The meaning of these should be made apparent, with the ground for their observance. It is not enough to tell a child that he must not turn around in a school. If this is the only instruction given him, he may observe it while the teacher watches him, for fear of punishment; but he is not benefited thereby. In fact he may be worse off than he would be without such a rule, for perhaps he sees no reason for observing it, and may even think he has sufficient ground for violating it. He may think it is a rule made for the convenience of the teacher and that it is unjust to require him to follow it. But if the point is properly considered in morning exercises and he sees that this thing is essential to the very existence of the schools, his motives for action are changed. It can be readily seen here what a direct bearing the morning exercises have on conduct in school. Suppose it becomes necessary during the day to reprove a child for a disorderly act. He can be led to tell the teacher what points of order he has violated, and to give the reasons for not violating them. The very thinking over of these points under the circumstances make him less liable to repeat the disorder. An exercise in connection with the study of the school room virtues is the reading of a story which illustrates one or more of them, the children making the application.

Devotional songs are excellent devices for cultivating the will. Care-

should be taken that their words are entirely understood. A consideration of their meaning leads to work similar to that already suggested.

In many schools, the Lord's Prayer is repeated daily. Do many of the pupils understand the significance of what they are saying when they utter the different petitions of that prayer? How much material for the cultivation of intellect, heart and will is contained in this—"Thy will be done on earth as it is in heaven." This petition alone might furnish subject-matter for fifteen minutes study on more than one morning.

Bible stories, psalms, the religions of other peoples, poems, biographical sketches, and newspaper items furnish themes for study. F. L.

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

METHOD IN THE SCIENCE OF GRAMMAR.

THE article in the preceding number of the Journal showed how to lead pupils to detect the universal nature of sentence structure, using, however, such simple typical sentence forms as, Snow is white,—Horses are animals. The work might next be extended over such sentences as, Birds fly, etc. By comparing this with Birds flying, it will be readily discerned that "fly" expresses something which "flying" omits; that "fly" expresses both the act of the bird and the mind's act of affirming the act of the bird. Require the pupil to picture what is expressed by both expressions, and note that the pictures are the same—that of a bird in the act of flying,—but in the first case he asserts the act, while in the second he does not. After many sentences of this type have been treated, require the pupil to compare with the preceding sentence forms; and to mark clearly the likeness and difference between such words as is, are, etc.; and "fly," "sing," etc.

The pupil has noted the distinction between the combined and the uncombined predicate. He is now ready for exercises in distinguishing between combined and uncombined predicates in such sentences as the following:

1. { The wine was drunk.
 { The man was drunk.
2. { The dinner is prepared.
 { The dinner was prepared in haste.

Here is a good opportunity to train the pupil in the typical form of activity in thinking the sentence. In the first sentence of the first pair lead the pupil to picture the wine and the act, and then apply the two elements of his picture to the words which express them. Now, lead the pupil to picture the man and his condition, and then to apply the two elements pictured to the words which express them. He will note that an attribute of condition is joined to the subject in the second case, and an attribute of action in the first; and that the word "drunk" alone names the condition, in the second sentence; but that it takes the words "was drunk" to name the act of drinking in the first sentence. The first is a combined and the second an uncombined predicate. The first is combined because it requires both words to express the idea which the mind joins to the subject: the word "drunk" alone would express condition. The second predicate is uncombined because the word "drunk" alone expresses the idea which the mind joins to the subject. "Was drunk" would express an act of the man, and not a condition. This will prepare the pupil to distinguish between the passive voice and that which resembles it in form—a pure copula followed by a predicate adjective.

I said that this is a good opportunity to train the pupil in the typical form of activity in thinking the sentence. Notice that the pupil in distinguishing between a combined and an uncombined predicate is required,—

1. To observe the sentence form.
2. To create the image and thought back of the words.
3. To analyze what the foregoing act presents.
4. To refer back to the words, for the purpose of making distinctions among them and organizing them, the mental product is disclosed by "2" and "3."

Distinctions in grammar arise from distinctions in thought back of words. Note that, in the first of the second pair of sentences, we image the dinner before us in a fixed condition; but that the second sentence carries the imagination from the table on which the dinner is waiting to the active process of preparation in the kitchen. These different images of the dinner referred to the words discloses a difference in their grammatical organization. To note how words organize about the mental act in thinking is true grammatical study. It can not, therefore, be too often emphasized that the teacher must cause the pupil to distinguish between

thought and form, that the pupil may analyze the thought to note how it determines the form.

One other suggestion may be sufficient for the first circle of work. When long and involved sentences occur the chief effort should be in noting the unity of subject, predicate, and copula in the one idea expressed. Suppose this sentence: This small pen with which I write was made by John Holland, at Cincinnati, Ohio. The pupil should note that all the words in the subject express but one idea—have their unity in that idea; that all the words in the predicate express but one idea—an action—have their unity in that idea. However long and involved the subject, predicate, or copula, the student must show their unity in the one idea or relation expressed. He should not be permitted to say that the word "pen" is the subject of the sentence, because the word pen does not express the subject of thought; neither that the words "was made" is the predicate, for it does not express the predicate of thought. There was but one thing made, and that thing is expressed by all the words in the subject; and there was but one act of making, and that act is expressed by all the words in the predicate. The whole expression, "This small pen with which I write," is the subject of the sentence, because it expresses the one idea to which the mind relates another idea. And the whole expression, "was made by John Holland, at Cincinnati, Ohio," is the predicate of the sentence, because it expresses the predicate of thought, or the idea which the mind identifies with the subject of thought. The distinction of the subject into logical and grammatical should not be made now, if at all. It prevents the clear conception of the subject as a unit. The student should have a clear conception of the thing to be divided before dividing it. We can not have black horses and white horses until we have horses. But this will all be taken care of by the teacher who requires the pupil to distinguish between thought and form, and then to refer the organic parts of the thought to the words. The pupil's conception will give him but one idea back of either subject or predicate. These are complex, it is true; but how the complex elements require a complex form of expression belongs to a later phase of work.

At the close of the first circle of work a pupil should be able to take any sentence—and they are as varied as the blades of grass—and give its universal character, in some good form of statement—somewhat as follows, using this sentence:—

The valley of the Mississippi is, without doubt, the richest in physical productions.

1. This is a sentence; it expresses the relation of unity which the mind establishes between two ideas.
2. The expression, "The Mississippi valley," is the subject of the sentence; it expresses the idea with which the mind unifies another idea.
3. The expression, "the richest in physical productions," is the predicate of the sentence; it expresses the idea which the mind unifies with another idea.
4. The expression, "is, without doubt," is the copula of the sentence; it expresses the act of the mind in unifying the two ideas.

These points may be variously expressed: they are repeated here only to emphasize the universal facts of sentence structure, and the points to be pushed clearly out in the first phase of grammatical study. The activities required in studying the individual sentence have been given. These activities applied to a great number of all types of sentences, holding the attention to their common, universal nature amidst engrossing differences, brings the pupil into a full realization of the triple unity of sentence structure as determined by the structure of thought.

THE SENSE PHASE OF HISTORY.

FROM the article on Phases of Mind growth, three things were learned:

1. That the mind in passing from immaturity to maturity, exhibits three phases of activity—the Sense, the Representative, and the Reflective;
2. That the subjects of study present to the mind three corresponding phases of attributes and relations—the individual, the class, and the universal;
3. That the mind, in order to get the greatest growth in knowledge and discipline, must have presented the phase of subject-matter that corresponds to its stage of development.

Therefore, to make history contribute most effectively to the growth of mind we must find what it has that can serve as appropriate mental food for each stage of the mind's life. Does history have a Sense phase? Let us see. History deals with the thought and feeling of a people. A people's thought and feeling are expressed in outward acts. These acts are sensuous and physical; they can be seen, heard, and felt. But it may be said that while the events of history were objects of observation

to persons who lived when and where they occurred, they can never be present to the senses again. It is true that, for the most part, the field of historical happenings is beyond the reach of the senses. It is just as true, also, that the child up to the time he reaches school has been observing and participating in the acts of men. While the acts observed in this period of the child's life are not the particular individuals he will study in after days, yet so great is the transforming power of the imagination that it can take the deeds of man presented to the senses and build from them pictures of the deeds of all peoples of all times. Now, the events that thus occur in the presence of the pupil's senses belong in the domain of all the institutions of human society. He is born into and remains a member of a family. He early learns the connection between occupations and his food and clothing. At six he enters school and, it is quite likely, before this he has been to Sunday-school and church. If he is an average boy, long ere this, he has taken an active personal interest in a political campaign. There thus seems to be a pretty wide field here which the pupil has already entered. Why should not this work spontaneously begun be taken up and carried further by the teacher? It would seem that a fuller and more systematic study could be commenced when the pupil first enters school. It might be well to let this spontaneous process go on for two or three years longer, till the class had covered all Sense work in Geography except that which relates to man. Such an arrangement would permit the teacher to combine this last part of Sense geography with Sense history. The two subjects, in material and point of view, are practically the same.

In order that we may accomplish definite results the end toward which we work must be clearly in mind. A definite purpose will, also, direct in the selection of material for work. The answer may be given in terms of discipline and of knowledge. 1. On the side of discipline: (a) The primary object is to confer the habit of judging men's thoughts and feelings through their acts; (b) A secondary end is to give the mind the habit of careful observation—the habit of finding truth in objects present to the senses. 2. On the side of knowledge: (a) The primary object is to give the mind material out of which the imagination may construct pictures of historical events; (b) The secondary purpose or rather result, is to give the children a more thorough knowledge of local institutions. The primary end on the side of discipline is peculiar to history. No other subject, in all its phases, puts the mind to the test


of finding man's head and heart in his acts. This is a power conferred by the study of history at every point. It should not be lost sight of in the Sense phase; for it seems very appropriate that when the mind begins to struggle with this problem, its material should be in its very presence and be sensuous and simple. A result, rather than a purpose, will be to give the mind the habit of studying objects that appeal to the senses. This is not peculiar to this kind of history work, but is rather a mental result to which many subjects contribute. The primary end aimed at on the side of knowledge in this phase of the work grows out of the relation between the Sense and the Representative phases of mental life. Because of the close dependence between them, it is right to say that Sense history has its highest significance in the fact that it gives the mind the material that makes possible the next stage of the work—a stage in which the mind is busy in constructing pictures of the past. Most of the events of history are of this kind—representative. Their mastery by the higher powers of the mind largely depends on the clearness and fullness with which the imagination can picture them. Now, the skill of the imagination partly depends on the material furnished the mind through the senses. It seems right, therefore, to say that the primary aim here is to prepare for the second phase of history study. Since the events dealt with in Representative history must reach the mind through the language of books or of teachers, it is right to say that this first phase of work prepares the mind to put meaning into the language, by means of which events are described to the imagination. It is no unusual thing for the pupil to be unable to put content into the words of the history text. He feels that a recitation must be made, and his only resource is to commit the language of the lesson. In such cases the book fails to arouse the pupil's imagination because the content of the book is foreign to any of his previous experiences. In other words, the pupil has not been properly prepared for the ideas and vocabulary of the history text. From this point of view, we seem justified in holding that the primary purpose in Sense history is to prepare the mind for the second phase of the study. This makes it clear that a knowledge of local institutions is a result rather than an end, or, it may be regarded as a means to the primary end; this means that local institutions are to be studied only in so far as they prepare material for the imagination. The knowledge of local affairs could hardly be the primary aim in this kind of work on account of the degree of mental strength.

W. H. MACE.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal in Indianapolis Schools.]

TOO MANY PROBLEMS.

e solve too many problems of the same kind. From ten to twenty problems are given for a lesson. The recitation hour is from 25 to 40 minutes in length. These problems must all be explained, even if they are all just alike. This explanation takes up nearly all, and often quite all the time. These explanations are, often, as like as two peas. Here is a sample:—If 4 hats cost \$12, what will 13 hats cost? This is to be solved by proportion. The explanation given is usually about as follows: "We take \$12 for the third term because the answer is to be dollars. The answer is to be greater than \$12, so we take the greater of the two remaining terms for the second term and the smaller for the first term. The proposition is, 4 hats is to 13 hats as \$12 is to the answer. Multiplying 12 and 13 together and dividing that number by 4 we get \$39 for our answer." To do this and nothing else is not only a waste of time and opportunity, but it is emphasizing the very thing that we wish to avoid in arithmetic, viz, rote work—solving problems by rule or by pattern. Solve fewer problems and take more time to understand the principles upon which the processes of solutions are based.

But some may answer that "practice makes perfect." Yes, perfect what? If we practice doing the work mechanically, we will become perfect machines, and if we practice doing it thoughtfully we will become perfect thinkers. What is the object of the school—to make machines or to make rational beings able to act independently?

But the business world, whatever that may mean, needs persons who are machines. A book-keeper must be accurate and rapid in addition. Yes, he must be more—he must be thoughtful. He needs good judgment. He will gain neither by explaining problems by a set formula.

Suppose we test our class somewhat as follows on the foregoing problem: Why do you take the fourth term for the answer? The average pupil taught in the most common way will say, "because the rule says so." Might we take any term for the answer? The pupil does not know. He supposes we might if the rule said so. How do you know that the answer, in this example, is more than \$13? "I looked in the book

and saw the answer and it is \$39?" This pupil is in no doubt. He never had a doubt about anything. Suppose you had a problem not in a book, what would you then do? "Don't know." Just here your bright pupil comes to the rescue. He says that \$12 is the cost of 4 hats and that we know that 13 hats will cost more than 4 hats, so we know that the answer or fourth term is larger than \$12 which we have taken for the third term. But even he does not see why we make the fourth term the answer.

Well, let us try them on the arrangement of the first couplet. Why not take the greater for the first term? Hands are up. We call on a bright looking pupil and he says "because it would not be right." No doubt about it; but we poke another *why* at him. He finally says he doesn't know. This pupil and nearly all in his class will solve and explain (?) problems of this kind in such a beautiful way that they get "a hundred" for days together. He finally enters the high-school and drops arithmetic, but in one year's time he acts as if he never had heard of proportion or percentage or fractions. The high-school teacher wonders why the pupils from "the grades" do not know anything of the the subjects studied there.

The pupils say they have forgotten the arithmetic and grammar. The truth is they never knew either. They knew how to do every *kind* of problem that was in the book, but they did not know arithmetic.

Let us, then, spend more time on principles and their applications and solve fewer problems. Have the pupil tell what principle of ratio or proportion is violated by stating the problem as last suggested. The pupil gains as much power by telling why a process is wrong as he does by explaining why it is right.

An agent received \$1000 to expend in wheat after deducting his commission of 5 per cent. What did he expend in wheat? A pupil solves it as follows: 5 per cent. of \$1000 = \$50. $\$1000 - \$50 = \$950$, the amount invested in wheat. What principle of commission is violated? Every pupil should be able to answer. Try yours.

HOW TO ADD.

CHILDREN should be taught how to add by "endings." Add 5, 8, 4, 7, 8, 3, 8, and see what the child must think to add by "endings." 5 and 8 are 13. The sum ends in 3. He now has to think what ending a 3

and a 4 will give. It gives 7, and since he knows he has not added enough to make more than 20 it must be 17. Now a 7 and a 7 are combined and this gives a sum ending in 4, so he instantly says 24. A 4 and an 8 gives an ending of 2 and he sees 32. A 3 and 2 gives 5 and he says 35. Then as 5 and 8 gives 3 he knows the next is 43.

These combinations should suggest the endings as quickly as the combination c-a-t suggests cat. This can be accomplished only by much practice. A good plan is to make tables showing what numbers combined will give each figure for an ending. Place on the blackboard the following:

$$\left. \begin{array}{r} 0 + 3 \\ 2 + 1 \\ 4 + 9 \\ 5 + 8 \\ 6 + 7 \end{array} \right\} \text{ Gives a sum ending in 3.}$$

The same plan should be followed for each figure. These combinations should be perfectly familiar to the pupil. Any teacher who will follow this plan persistently can not fail to produce rapid adding in his classes. Even children in the Third Reader will soon be able to add as fast as they can talk. Do not give all the endings at once. Practice on a few at a time and practice on the few till they are mastered. Make such examples as the following: $2+1+3+7+2+8+1+9$. Notice that combinations giving a sum ending in 3 are frequent.

"THE SENTENCE METHOD."

WE have heard a great deal about the sentence method of teaching reading. It is claimed that the sentence is the unit of thought, i. e., it stands for or expresses the thought the child has, and that it should be presented as a whole as a sign of what he said. The teacher shows him a bud and he says, "The bud is red." She writes this on the board and tells him that it says just what he said. He is then asked to read it. If he is asked soon enough he reads it because he remembers what he said. This may not be just in accordance with the theory of the "sentence method," but it is just what the writer saw in a school taught by one who is supposed to be following this method. Before a child can know that this bud is red, he must see the bud and compare it with his idea of red. When this is done he can unite the two ideas and the product is what some have called "a thought." He then says, "The bud

is red." The teacher writes this on the board. Now suppose he is to reach the thought by means of the sentence. Must he not learn that one part, the words *the bud*, call to his mind some bud, and that another part, the word *red*, calls to his mind the color, and that still another part, the word *is*, shows that the one who wrote the sentence had concluded that this color belongs to this bud?

If this be true, it does seem necessary for the child to recognize these parts as signs of these ideas first, and then be allowed to put the words together to tell something. He never should be allowed to read any sentence orally till he has done this. It seems to the writer that this is the "sentence method" greatly needed in many schools.

GIVING REASONS.

MANY teachers of grammar insist on the pupil's giving a reason for all that he says, e. g. : The tall elms bend. "This is a sentence because it is a thought expressed in words. The word *elms* is the subject because it names that of which something is thought. The word *bend* is the predicate because it tells what is thought." This sounds pretty well for one or two sentences, but when one hears twenty or thirty pupils giving the same reason for twenty or thirty different sentences, he begins to think that it is a mockery or something worse. Of course these "reasons" are statements of general truths, but what the pupil should learn to do is to apply the general truth to special cases.

Ask the pupil to say something about the subject of this sentence that he could not say about the subject of *every* sentence. He says, "The word *elms* names the thing that bends, so I know it is the subject." Treat the predicate in a similar manner. "The word *bend* tells what the elms do, so it is the predicate of the sentence." So every word in any sentence may be disposed of. This would lead to a close study of the meaning of every word as well as the meaning of the sentence. Also fix the habit of applying general truths to special cases.

GENERAL INFORMATION.

THE ROSETTA STONE.—The "Rosetta Stone," a famous Egyptian curiosity now in the British Museum, was discovered in the year 1799 by M. Boussard, a French explorer, near Rosetta, a seaport of lower Egypt.

It is of black basalt, about forty inches long and thirty inches wide, with three engraved inscriptions upon its surface. The first of these is in Greek, the second a conglomeration of hieroglyphics, the third in enchorial writing, a system used by the Egyptians in recording every-day matters. After years of laborious research the savants of Europe ascertained that the three inscriptions were three versions of a decree in honor of Ptolemy Epiphanes by the priests of Egypt, because he had remitted their taxes. This wonderful relic dates about two centuries before the beginning of the Christian era.—*St. Louis Republic*.

ELECTRIC LIGHTS IN CHINA.—If report is to be relied on the Chinese have still a long way to go before they will be in a position to avail themselves of the benefits of modern scientific progress. It is stated that the imperial palace, by order of the young emperor, was fitted throughout with electric lights. The imperial cabinet was called together to witness the formal opening of the new system of illumination. Instead, however, of their expressing admiration of the brilliant light they stood aghast. This wonderful sheen, which came and went at the touch of a button, could only be the offspring of supernatural powers, and was probably a machination of evil spirits. Thus in solemn conclave the mandarins decided, and in a very few days the electrical plant was removed.—*Chicago Times*.

THE LARGEST LENS.—The largest lens in the world has just arrived in Boston, and is regarded with great interest by scientists. The lens is ten feet in circumference, three inches thick, and cost about \$60,000. It was made in Paris, and is intended for the new telescope to be erected on Wilson Peak in the Sierra Madre Mountains, near Los Angeles, 6000 feet above the sea, for the University of Southern California. It will be the largest telescope in the world, the object glass being three feet four inches in diameter, or five inches more than the famous Lick telescope. The tube will be sixty-five feet long, and the moon will be brought by it within one hundred miles of the earth.

WHY IT IS FOOLSCAP.—It is often asked why a certain kind of paper is known by the name of "foolscap." When Oliver Cromwell became Protector, after the execution of Charles I, he caused a stamp representing the cap of liberty to be placed upon the paper used by the government. Soon after the restoration of Charles II he had occasion to use some paper for dispatches, when some of this paper was brought to him.

On observing the stamp he asked its meaning, and on being informed he said, "Take it away; I will have nothing to do with a fool's cap!"

NEWSPAPERS.—There are 41,000 newspapers published in the world. 24,000 are printed in Europe. Germany has 5,500; France, 4,100; England, 4,000; Austria-Hungary, 3,500; Italy, 1,400; Spain, 850; Russia, 800; Switzerland, 450; Belgium and Holland, 300 each; Japan and Africa, 200 each; Sandwich Islands, 3. Seventeen thousand are printed in English; 7,500 in German; 6,800 in French; 1,800 in Spanish; 1,500 in Italian. It will be observed that a greater number is published in English than in any other language.

WOOD THAT SINKS IN WATER.—There are 413 species of trees to be found within the limits of the United States, 16 of which, when perfectly seasoned, will sink in water. The heaviest of these is the black iron-wood, found only in southern Florida, which is more than 30 per cent. heavier than water. Of the other 15, the best known is the *lignum vitæ*, and the mangrove. All the species heavier than water belong to tropical Florida or in the arid West or Southwest.

BANCROFT.—On October 3, George Bancroft, eminent historian, celebrated his ninetieth birth-day.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This Department is edited by Miss A. E. FREDRICKSON, of La Porte, Ind.

PLASTIC CLAY.

ALL CONCEPTS of solid form come originally through the sense of touch, and as sight judgment of form depends upon the association of light and shade with sensations of touch; it is necessary that the child handle forms. He should use his hands to examine and to produce forms.

No material is so well suited to the production of forms by young children as the plastic clay. The child is delighted when he discovers the plastic properties of the material and his interest is aroused. It comes to him as a means by which he may express himself. As such it is a true test of the child's knowledge; for it reveals his concept. It appeals to

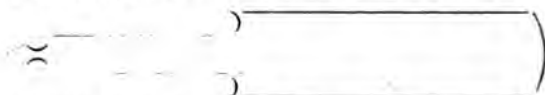
his whole nature and furnishes ample scope for the employment of creative genius.

Owing to the softness of the surface, gentleness and delicacy of touch are necessary. Each form modeled calls into exercise concentration of power, patience and perseverance. The mission of the clay as an occupation is to call forth and develop the innate talents of the child, which would otherwise lie dormant. For this reason it should be in the hands of every child, and as it is inexpensive it is within the reach of all.

In some localities it may be had for the digging. Where this is not the case it may be produced from potteries at a cost of from one to three cents a pound.

In preparing it for use, it should be dampened until of the consistency of stiff dough, then kneaded into loaves and wrapped in damp cloths until the children are ready to use it; when it may be cut off in pieces of convenient size for the little hands, each piece containing just enough to produce the required result.

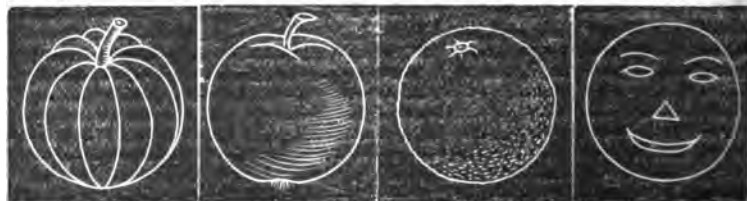
Each child is furnished with a modeling board (simply a smooth board twelve by twelve inches, cut at the planing mill), and a wooden clay-knife, six inches long and three-fourths of an inch wide. They can be



bought for 25 cents a dozen, or may be whittled from soft wood by the boys, who will enjoy the privilege of thus aiding the teacher.

The first exercises should be such as will acquaint the children with the material and arouse their interest.

Taking the sphere as a fundamental form, the teacher working with the children shows them how to roll the clay in the hands and shape it, emphasizing the value of gentle pressure. All disrespectful treatment of the clay, such as pounding, pinching, should be discountenanced from the very beginning. The imagination is active, and the sphere when



completed is suggestive of many things. One child will see in it a melon, another an apple, an orange, the moon, etc. A few indentations made

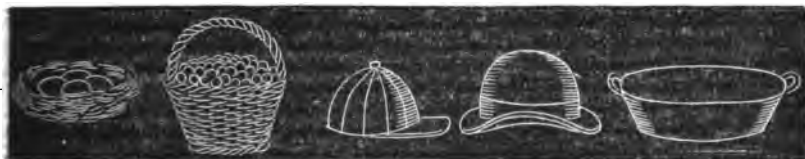
by the fingers and with the sharp end of the clay knife, and the sphere is transformed into these realities.

Small spheres may be made, and these too are rich in suggestions of marbles, cherries, grapes, and currants. In making groups of cherries



or bunches of grapes and currants, it is best to have real fruit-stems upon which to place the fruit, as stems made of clay break very easily and are unsatisfactory.

Again, dividing the sphere into the two hemispheres, the children deftly and with much interest and enthusiasm transform their hemisphere into baskets (which they fill with apples or cherries), bird's nests, hats, caps, dishes, pans, and a score of other things. In the application



of these forms the child should have perfect freedom to make what they suggest to him.

A COLLECTION OF NUTS.

AT this season of the year when all the children are interested in nutting excursions and collecting a store of nuts for winter use, let us employ their enthusiasm in this line and secure a collection of nuts for the school room.

When nuts are brought in lead the children to compare and note the differences in shell and external structure. Have them see the many ways by which they may distinguish the different kinds aside from the taste.

These nuts should be preserved by mounting them on card-board, in pairs, one with the shell and one without; the name written under each kind. The most satisfactory way of mounting the nuts is to sew them on the cards. Where card board is not furnished by the school board,

the teacher may use the bottom or lid of a white paste board box, which can be obtained at any dry goods store.

In connection with the work on nuts there should be lively, interesting talks about the trees on which they grow; how they differ, etc. This will lead to the observation of leaves, bark, and wood, and talks about the uses of woods. Collections of these should also be made and mounted. For the collections of wood and bark all the pieces should be of about the same size. As far as practicable have three pieces of each kind of wood in your collection, showing a vertical, horizontal, and slanting section. It will add to the beauty of this collection if each piece of wood is sandpapered and oiled, which will bring out the grain of the wood.

COUNTRY SCHOOL DEPARTMENT.

COUNTRY SCHOOL VS. CITY SCHOOL.

THERE is a general belief that city schools are better than country schools—that city teachers get better wages than country teachers, that city teachers have fewer grades to teach, and therefore have much easier work; that city children being better classified get more attention from the teacher, and are therefore more rapidly advanced; that city children having the benefit of longer terms of school secure a better education than is afforded the country children, etc., etc.,—the general conclusion being that city teachers and city schools in every way have the advantage of their country neighbors. Is this conclusion correct? Let us see.

Let us examine some of these statements and discover what truth there is in them. It is true that city teachers receive slightly larger salaries than those received by country teachers, but it costs more to live in the city and there are more demands for money, and the net saving is but little if any in favor of the city teacher. It is true that the city teacher has fewer classes to teach, but on an average she has nearly double the number of children to control and instruct, and the extra demands of the superintendent generally tax the strength of the average teacher to its capacity. The city teacher having fewer classes can give more time to them, but their great size gives little time for each individual pupil.

With teachers of equal skill it is a question as to whether the city or the country child will be further advanced at the end of a given number of months of school. While the country child spends comparatively little time in recitation he has ample opportunity to hear recitations of classes both above and below him, and thus picks up a vast deal of information. The city children have more months of school each year, but as a rule country children continue to attend school longer, so that at the age of maturity, the difference in the amount of education is probably in favor of the country children. It is a noted fact that a majority of the leading men in the cities, both professional and business, have come from the country.

The writer is aware that the city has some advantages over the country in school matters, but he has written the above to show that the good things are not all on one side, and that the country can really boast of many advantages.

THE COUNTY SUPERINTENDENT'S VISITS.

As a COUNTY superintendent can make but one, or at most two or three visits to each school in a school year, it is a matter of great importance as to what is done during these visits. If a superintendent simply makes a friendly visit and perhaps makes a "speech" to the school, the benefit may not be very great; but if a superintendent knows a good school when he sees it, and knows what is the matter with a school when it is not good, and then honestly, frankly, and kindly does his full duty, great good must result.

A superintendent should make the teacher feel that he is a friend come to help, and not simply a critic there to find fault. When this kindly relation is established then the superintendent can note all faults and make all needed suggestions without giving offense. Certainly criticisms should be made to the teacher privately, and nothing said to the school, that would lower the teacher in the estimation of the pupils.

A teacher should feel free to ask for suggestions and insist on the superintendent making his criticisms frankly and fully. In this way only can official visits result in most good.

Some superintendents adopt the plan of marking a school on a number of points, such as order, ability to instruct, manner, neatness, etc., and then hand his marking and criticisms to the teacher as he leaves or send

them by letter. Those who adopt this plan think they can be more definite and give the teacher a more correct idea of his standing than when the statements are made to him orally.

This may be best, but a frank and full discussion face to face seems to the writer preferable.

FIVE MINUTE EXERCISES.

THESE EXERCISES in letter-writing were prepared for the lowest class in the high school, New Haven:—

1. Write to a merchant in another city, asking for samples and prices of goods.
2. Write a formal note inviting an acquaintance to a social gathering at your home.
3. Write a formal note accepting an invitation to dinner.
4. Decline an invitation to accompany a friend to a concert.
5. Write an informal note to a friend in a distant town, inviting him or her to make you a visit.
6. Write an informal note announcing some good news.
7. Write a note to accompany a Christmas gift which you send to a friend.
8. Write a note asking a person to contribute money to some good cause.
9. Write to some noted man, asking for his autograph.
10. Write a note of congratulation to some American author on his birthday.
11. Write a note asking a stranger to exchange with you stamps, coins, or curiosities.
12. Write a note commending some book which you have recently read.
13. Apply for a situation as clerk, book-keeper, or teacher. State briefly your qualifications.—*Pennsylvania School.*

THE NATIONAL NORMAL UNIVERSITY, Lebanon, Ohio, has opened with fuller attendance than ever. The enrollment last year was over 4000 and they expect to exceed it this year. The number of classes organized is more than usual, the facilities offered are better than ever. While other institutions are suffering from ill-health, there is no sickness whatever at Lebanon.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

TAKE NOTICE.—The Journal's new location is 66½ North Pennsylvania St., opposite Grand Opera House.

If you do not receive your Journal by the 15th of the month write at once and ask to have it re-mailed. Occasionally a teacher will wait two or three months before writing. This delay is generally inexcusable, and results in loss to the teacher and usually unnecessary trouble to the publisher.

OUR REMOVAL.—This Journal has had its home in the Journal Building for nearly twenty years, but owing to the fact that this building has recently been sold and the purchaser desires the Journal sanctum for his own uses, the Journal is compelled to move out. It regrets exceedingly to make this change as it was much attached to its old home where it has welcomed so many of its friends.

The new quarters are only around the corner in the same square, Room 6 in Vajen's Block, 66½ North Pennsylvania street—directly opposite the Grand Opera House. It will receive its friends in its new home after Nov. 1, 1890.

"HAPPINESS depends not on what one *has*, but on what he *is*. He who is of a cheerful spirit will be cheerful in all his privations. He who is of a complaining spirit will never lack occasion of complaining."

GEO. P. BROWN, editor of *The Public School* at Bloomington, Ill., is well remembered as an ex-president of the State Normal School, and one of Indiana's leading educators. The following pleasant words we clip from the October issue of his paper: "The editor wishes especially to express his thanks to his old friends in Indiana for the kind and generous recognition they have made, and are making, of his efforts to publish a thoughtful and practical school journal: *The Indiana School Journal* is one of the best in America, and if ours can come to stand second to that in the estimation of Indiana teachers we shall be satisfied." Such a compliment from such a source is highly appreciated.

CO-EDUCATION IN BOSTON.—It is perhaps not generally known that in Boston and many other eastern cities the boys and girls are not seated in the same school-rooms, and that when the high-school grade is reached separate buildings are employed. In Boston the co-education question is being seriously discussed. Not long ago the school board took up the question and appointed a committee to canvass the matter and make a report. The committee not being able to agree brought in a majority and a minority report; the majority report being in favor of the co-education plan. The board rejected the minority report and set a time to further consider the majority report.

This indicates that even Boston is capable of making advancement.

ANOTHER SUPREME COURT DECISION.—It will be remembered that in Fulton county three years ago there was a contest over the election of county superin-

tendent. The trustees were divided even politically and a tie gave to the auditor the deciding vote. As the auditor was a Republican the Democrats decided not to vote and claimed that as there was no tie the auditor could not vote, and thus defeating an election the incumbent would hold over. As there were no votes against the Republican candidate, the auditor reasoned that silence gave consent, and declared him elected. The case was decided in favor of the auditor's action in the lower court, and the Supreme Court has recently confirmed the decision.

This agrees with the decision of the Attorney General and seems to be well established as a law principle: viz., that a person present and not voting consents to what the body does.

"PLEASE STOP MY JOURNAL" is the wording of a letter before me. The writer subscribed with an agent last August "on time" and has received the August, September, and October numbers. He says nothing about paying for these numbers and gives no reason for his request.

When a teacher agrees to take the Journal for a year and gives his name to an agent with that distinct understanding, he is morally bound to stand by that contract if he is a person of honor and has regard for his pledged word. On the strength of this agreement the agent has sent in the name, and the editor has given the agent credit for it and placed it on his books. He has also paid to have it put in type in the mailing list.

The law holds a person liable for a subscription till he *pays up to date*, even if it extends beyond the time for which he subscribed; but leaving out the legal phase, is it honorable, is it fair to give trouble and expense and then deliberately annul a contract without the very best of reasons. If there is a good and sufficient reason it should be given and all arrearages *paid to date*, and then the publisher should be asked to release you. Under such circumstances he will be very willing to do so as a *favor*.

All that is asked is that teachers shall look at this question from both sides, and then do as they would be done by.

A DECISION OF GREAT IMPORTANCE TO TEACHERS.

Special to the Indianapolis Journal.

MADISON, Oct. 13 —Judge W. T. Friedley has just decided a case of great importance to the teachers of Indiana. In 1889 the General Assembly passed an act forever exempting from further examination for license all teachers who had taught six consecutive school years and been successful in securing two or three-year licenses, one of which licenses was in force. The county school superintendents afterwards held a meeting and decided that the law would not exempt teachers unless they secured an exemption certificate from the county superintendent at some period during the time for which the license was originally granted.

Acting upon this resolution, the county school superintendent notified the city school trustees that a number of city teachers had no authority to teach.

their license in force when the law passed having expired, and that they had failed, while it existed, to procure from the superintendent an exemption certificate. As other teachers in their section outside of the city of Madison were also interested in the matter, they engaged the services of Hon. Marcus R. Sulzer to bring a test case in the Jefferson Circuit Court, which he did, and which ended in the court deciding that the act of the county superintendent was not law—therefore, being void—and that all the teachers who came within the provisions of the act at the time it became a law were forever legal teachers and forever exempt from further examination or being compelled to procure a new license so long as they continued teaching in the same county where the original license was granted, provided they taught during each school year.

The above decision is binding only in the judicial district over which Judge Friedley presides, but it creates a "presumption" that the law is as decided, and unless the Attorney General rules differently this decision will probably be followed throughout the state.

APPORTIONMENT.

DEAR MR. BELL: The question of the apportionment of the school revenue promises again to raise its heavy head during the coming session of our Legislature. We shall again, I fear, see the city schools and the district schools pitted against each other in an unseemly strife to gain the greater share.

Now there can be little difference of opinion with reference to the justice or injustice of any basis of apportionment; the city schools and the district schools are equally interested and on the same side. Every so-called benefit that may accrue to either of them at the expense of the other must in the end prove illusory. Prosperity purchased at the cost of the neighbor's welfare will ultimately prove to be futile. Within the limits of justice, whatever measure aids the city schools must exert a helpful influence on the district schools of the county and vice versa.

It seems to me, therefore, advisable that the county superintendents and city superintendents of the state, instead of arraying themselves against each other in hostile camps, should labor jointly to find a just basis of apportionment of the school revenue, a just mode of procedure which in its operation would equably and mutually benefit all.

Now such a basis can never be found in accidental considerations, such as enumeration or enrollment, that have very little bearing upon the character and efficiency of the school work. They must be sought among the more vital phases of school economy, among the factors that lift or lower the work of the school.

Permit me to suggest a few of these without, however, implying that these are the best or worthiest, but merely for the sake of illustration. Among the factors that determine the usefulness of a school one of the foremost is *actual daily attendance*. In the measure of the growth of this will the school extend its beneficent influence in the community. It would, therefore, seem perfectly safe as well as perfectly just to make this the basis of apportionment.

Even egoistically considered, such a basis would make it a matter of personal interest for every citizen to send his children to school and to urge his neighbor to do likewise, so that in its operation such a principle of apportionment would act very much in the same way as a fairly executed compulsory law.

It is evident, too, that in any given county diligent school attendance in the district schools must re-act favorably upon the attendance in the city schools and vice versa, by generating in the entire county a spirit of healthy emulation in this direction.

Again, it is quite desirable that the number of schools be increased, that more teachers be employed for the same number of children. It would, therefore, be wise statesmanship to reserve a certain portion of the school revenue (say 10%) to be distributed among the various counties in proportion to the number of teachers employed. Such a principle of distribution wisely applied, would tend to increase the number of district schools in the county and the number of teachers in the city, and would thus secure more general and more effective teaching, which in its turn would again re-act favorably upon the actual daily attendance.

Still a third desideratum we have in the extension of high-school facilities to all, or at least to the greatest possible number of children in the state. It would, therefore, be a most excellent measure to open the high-schools of the cities to the children of the county. In return for this a part of the school revenue apportioned to the county (say, again, 10%) might be distributed among the high-schools in proportion to their school daily attendance. It will be seen that this, too, would re-act favorably upon the actual daily attendance which, other things being equal, is the thing most to be desired.

I merely throw these suggestions out as hints as to the direction in which valid criteria for truly helpful apportionment of school revenue may be found. The details, too, which I suggest are given merely by way of illustration, not as definite propositions. In order to arrive at these it would become necessary at the hand of statistical data to survey the field quite carefully, to study the probabilities involved, and to map out modes of procedure that will insure the highest degree of fairness.

Trusting that some of the colleagues most actively interested in pending legislation on this point may find these suggestions helpful, I am

Yours truly,

W. N. HAILMAN.

LA PORTE, Oct. 20, 1890.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN SEPTEMBER.

PHYSIOLOGY.—I. Write upon the subject, "The Muscles," under the following heads:

1. Their structure.
2. Their shapes.
3. Their arrangement.
4. Their uses.
5. Their hygiene.

II. Write upon the subject, "The Skin," under the following heads:

1. Its structure.
2. Its appendages.
3. Its glands.
4. Its uses.
5. Its hygiene.

GEOGRAPHY.—I. What is the origin of the water of springs?

2. Where are Lucerne, Naples, Vera Cruz, Valparaiso, Denver?
3. Bound Iowa.
4. What are the chief products of the northern peninsula of Michigan?
5. What is the character of the coast of Maine?
6. Name some city in the United States nearly in the latitude of Rome.
7. What are the principal railroads crossing the continent of North America?

GRAMMAR.—I. Whoever does a good deed is instantly ennobled. Parse *whoever*, *deed*, *instantly*.

2. Name the different ways in which adjectives are compared. Give an example of each.
3. State the most important directions for the use of adverbs.
4. State the difference in meaning between these two sentences: (a) She walks a queen. (b) She walks queenly.
5. What is it that determines the case of a compound relative pronoun? Show by an example what you mean.
6. State the use of the clause in each of the following sentences: (a) The anxious question was, "Who is elected?" (b) You said nothing of how I might escape. (c) It is not known who invented writing.
7. Write: (a) A sentence containing an adverbial clause of time; (b) one containing an adverbial clause of degree; (c) of manner; (d) of cause.
8. In the sentence, "It has rained, for the ground is wet," what relation exists between the two clauses?
9. What gives rise to the grammatical property of voice? Do all verbs have voice? Give reason for your answer.
10. Give the comparative and superlative forms of each of the following adjectives: *ill*, *little*, *honorable*.

SCIENCE OF EDUCATION.—I. Discuss the subject of Manual Training in the public schools, giving—

- (1) What you understand by Manual Training.
 - (2) What seems to you the main reasons for requiring the school to include this in its course.
 - (3) The objection to introducing this into the schools.
 - (4) The obstacles to be overcome in order that the work may be successful.
2. What do you think is the drift of public opinion and sentiment on the subject of revising the "Course of Study" so as to make it embrace Manual Training?

U. S. HISTORY.—I. Write out the story of the capture of Quebec by Wolfe, using this outline:

- (1) The siege.
- (2) Landing of Wolfe.
- (3) The engagement.
- (4) Fate of the two commanders.
- (5) Provisions of the treaty which followed.

II. The Slavery Question.

- (1) Origin in this country.
- (2) Extent of country over which it has at any time extended.
- (3) Reasons for its decline in certain sections.
- (4) Why controlled in the territories by Congress?
- (5) Its relation to the Civil War.

III. Growth of the idea of Union among the different sections before and after the Revolution.

- (1) Influence of a common persecution.
- (2) Influence of common conditions of living.

ARITHMETIC.—I. A man bought $52\frac{1}{2}$ bushels of wheat at $62\frac{1}{2}$ cents per bushel, and sold $\frac{1}{3}$ at $69\frac{1}{2}$ cents and the remainder at $71\frac{2}{3}$ cents per bushel; what did he clear by the transaction?

2. Divide the sum of six thousandths and six millionths by their difference, to 6 decimal places.

3. What is the rule for determining leap years?

4. A jeweler sold a ring at $12\frac{1}{2}\%$ less than cost and lost \$25; what was the amount of money he received?

5. An agent having bought some flour, paid $\$54\frac{1}{2}$ storage and charged \$180 commission; his entire bill was \$8,234 $\frac{1}{2}$; what was the rate of commission?

6. Explain the protesting of a note.

7. What is the compound interest of \$568 for 3 years at 6%?

8. If $\frac{2}{3}$ of a barrel of flour costs $\frac{1}{2}$ of an eagle, how many dollars will 15 $\frac{1}{2}$ barrels cost?

9. I owe \$1,500, $\frac{1}{3}$ of which is due in 2 mo., \$600 in 5 mo., and the remainder in 7 $\frac{1}{2}$ mo.; required the average term of credit.

10. A ladder 82 feet long stands close against a building; how far must it be drawn out at the bottom that the top may be lowered 2 feet?

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to the standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

Or, the county superintendent may conduct the examination in these subjects in any manner he may desire.

READING.—

"Come, my friends,

'Tis not too late to seek a newer world.
Push off, and sitting well in order, smite
The sounding furrows; for my purpose holds
To sail beyond the sunset, and the baths
Of all the western stars, until I die."

—From Tennyson's "Ulysses."

1. Ask 10 suitable questions, calculated to bring out the meaning of the above extract. 10 points, five each.
2. Write a brief biography of Tennyson and name his most important works. Mark from 1 to 50.

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. Who is supposed to be speaking in this verse?

2. What are they about to do?
3. Explain "a newer world."
4. What is meant by the command "Push off?"
5. Explain "Smite the sounding furrows."
6. Could they sail beyond the sunset?
7. What is meant by the "baths of all the western stars?"
8. What stars do not bathe in the ocean?
9. Explain the expression "My purpose holds."
10. Write in your own words the thought of this stanza.

Alfred Tennyson, the third of seven sons of Rev. George Clayton Tennyson, was born at Somersby, England, August 6, 1810. His home training was all that could be desired. He showed signs of poetic powers at an early age, as did two of his brothers. He attended Trinity College, Cambridge, and while there gained the chancellor's medal by a poem in blank verse entitled, *Timbuctoo*. At the death of Wordsworth in 1850 he became Poet Laureate, which position he still holds. His principal poems are: "Morte D'Arthur," "May Queen," "Locksley Hall," "Enoch Arden," "The Holy Grail," etc.

ARITHMETIC.—3. Every year divisible by 4 is a leap year, except the centennial years, which must be divisible by 400.

4. He lost $\frac{1}{8}$ of the cost, or \$25, and received $\frac{7}{8}$, or \$175.
5. $\$8234.50 - (\$180 + \$54.50) = \8000 , what he paid for the flour. $\$180 + \$8000 = .02\frac{1}{4}\%$, or $2\frac{1}{4}\%$, Ans.
6. A protest is a written notice made by a notary public to the maker or endorsers of a note or draft that it has not been paid when due. It must be made on the last day of grace.
8. $\frac{1}{2}\frac{7}{8}$ of an eagle is \$4.80
 $\frac{3}{8}$ lbs. cost 4.80
 $\frac{1}{8}$ lbs. cost .96
 $16\frac{1}{2}$ or $16\frac{1}{4}$ lbs. cost 96.96 Aas.

$$\begin{array}{rcl}
 9. & 500 \times 2 & = 1000 \\
 & 600 \times 5 & = 3000 \\
 & 400 \times 7\frac{1}{2} & = 3000 \\
 \hline
 & 1500 & 7000
 \end{array}$$

$7000 \div 1500 = 4\frac{2}{3}$. \therefore 4 mos. 20 days is the average term of credit.

10. $\sqrt{82^2 - 80^2} = 18$ feet, Ans.

GEOGRAPHY.—1. It comes originally from the ocean. It is carried by the atmosphere and clouds and deposited over the land as rain, hail, snow, frost, and dew. It percolates through the soil and earth till it strikes the rock or other hard substance and flows out as springs.

4. Lumber, copper, silver, iron, furs, and fish.

7. The Canadian Pacific, Northern Pacific, Union and Central Pacific, The Atchison, Topeka & Santa Fe, west of the Mississippi, with their numerous eastern connections, some of which are The Lake Shore, The Pan Handle, The Baltimore & Ohio, etc.

GRAMMAR—1. *Whoever* is a compound relative pronoun, in the nominative case, singular number; it is equivalent to *any one who*; the antecedent part is the subject of *is ennobled*, and the relative part is the subject of *does*. *Deed* is a common noun, singular, objective case, the object of *does*. *Instantly* is an adverb used to modify *is ennobled*.

3. Adverbs should be placed as near as possible to the word which they modify. Do not use adjectives for adverbs.; do not use inappropriate adverbs.

4. (a) She *is* a queen and shows it in her walk.

(b) She is *not* a queen, but walks as if she were a queen.

5. The *use* of a compound relative determines its case, as *Whatever* he says, do. Here *whatever* is the object of *says*, and must be in the objective case.

6. (a) Used as a noun, the predicate of the sentence.

(b) Used as a noun in the objective case after the preposition *of*.

(c) Used as a noun, the subject of the sentence.

8. It has rained is the principal clause; "for the ground is wet" is the subordinate clause. The relation is that of cause and effect.

9. The form of the verb which shows whether the subject is acting or is acted upon. Transitive verbs alone have voice. A majority of the best authors perhaps, define voice as above, but other eminent grammarians do not allow voice to verbs.

SCIENCE OF EDUCATION.—1. Manual training means hand training,—educating the hand to do; teaching the elements of the manual trades, such as working in wood, iron, stone, etc.

2. The necessity of preparing pupils to earn a living by manual labor. A large majority of our pupils must earn their living by manual labor, and it is thought by many educators that our common schools should give such training as would aid them in mastering some useful trade.

3. It would render the common school system heavy and cumbersome. It would be too expensive. It would be impossible to teach all that might be de-

manded. The function of the schools is mental development and training rather than manual training.

4. Competent and skilled instructors must be secured; proper buildings and apparatus must be provided; money to defray the additional expense must be secured; public sentiment must be educated.

HISTORY.—1. Taxation without representation was imposed alike upon all the colonies. Commerce and manufacturing were restricted in each of the colonies. The colonists formed a union for the purpose of asserting their rights as English subjects. The culmination of the growth of public sentiment is excellently set forth in the Declaration of Independence.

2. All sections of the American colonies were struggling to make comfortable homes. Their interests were much the same. Agriculture was the leading occupation. The restrictions put upon manufactures and commerce had a common effect, and caused the colonies to rely upon each other for assistance. No one section had any great advantage over any other. Their mode of living was much the same. The colonies were bound together like pioneer families.

MISCELLANY.

QUERY.—“Is there a training school for nurses in Indianapolis?” Yes.

KOSCIUSKO Co. sustains a “principals’ association.” Does any other county do this?

MUNCIE, under the supervision of W. R. Snyder, is having a prosperous school year.

DE PAUW UNIVERSITY is full and prosperous. Pres. John has reason to feel proud of the success of the great institution over which he presides.

THE SADLER PUBLISHING Co., of Baltimore, Md., offers \$700 in cash prizes for the best criticisms on Sadler’s Practical Arithmetic, which they publish.

THE BIG FOUR GAZETTE is a three-column 16-page monthly, published in the interest of the Big Four Road. It is gotten up in excellent style and contains many interesting facts in regard to railroads and railroading.

MICHIGAN CITY is growing. Two teachers have been added to the corps. One new school-house has just been completed and another will be ready by the middle of the present school year. Supt. J. C. Black seems to be doing a good work.

HANCOCK Co.—Supt. Jackson, assisted by a committee, makes out outlines for the school work of each month. This leaves the teacher free to make his own devices and follow his own methods, and simply indicate the general scope of the work and aid the teacher in keeping to the course of study.

SILVER, BURDETT & Co., of Boston, have recently become the publishers of the entire list of school and college text-books hitherto published by John C. Buckbee & Co., of Chicago. This gives the firm an extended list of text-books, all of which are fresh and fully up with the best thought of the subject treated.

HUNTINGTON CO.—Supt. Kline is doing much to unify and systematize the school-work in his county. As a stimulus and a help in following the course of study, he sends out questions based on this course of study, monthly, and asks teachers to conduct "written recitations." These are suggestive to the teacher and stimulating to the pupils.

FAYETTE CO.—Supt. Thiebaud in his manual for 1890-91 gives a comprehensive view of his work. The manual contains an outline of the state school system; names of school officers and their duties; course of study; comments on course of study, with suggestions; educational meetings; reading circles, etc., etc. It is one of the fullest yet received.

THE BOWEN-MERRILL CO. of Indianapolis, whose book-store was burned last spring, have just moved into their new quarters on Washington street, nearly opposite their old stand. They have by far the largest and finest book-store in the state. Teachers who visit Indianapolis should not fail to call and see this extensive establishment even if they do not wish to buy any books.

GREENCASTLE.—Supt. R. A. Ogg in his monthly report shows his schools in a growing condition in every department and from all points of view. The fact that the high-school steadily grows is a credit, as high-schools do not generally prosper in college towns when the college has a preparatory department. There is a good school library which the superintendent thinks should be enlarged and opened to the public. He also makes a plea for a central high-school and library building.

CONNERSVILLE.—Supt. W. F. L. Sanders writes as follows: The school-work is going on well. We have a splendid school-board. Already, this year, they have bought for us two copies of the new "International Dictionary"; five copies Cyclopedias of Persons and Places; five copies Cyclopedias of Common Things; \$150 worth of apparatus for physics and chemistry; supplied the new building with artificial gas, to aid in experimental work; in fact, they simply told me to get what was needed, and present the bill! Can you beat that?

INDIANA UNIVERSITY.—W. E. Henry, for five years principal of the Peru high-school; J. M. Robinson, for two years superintendent of the Oakland City schools; W. J. Johnson, late principal of the Otterbein University Nor. School, Westerville, Ohio; — Spangler, former superintendent of the Gosport schools; and C. E. Atkinson, of Fairmount, Ind., are among the mature, experienced teachers spending the year in pedagogical study in Indiana University.

Dr. J. S. Jenks, Prof. of Economics in Indiana University, is preparing for early publication a magazine article on the Economic Aspect of the Indiana Text-book Law.

The number of students in the Indiana University, in all departments, shows an increase of more than twenty per cent. over the enrollment at the same time last year. The total enrollment for the year ending June, 1890, was 339. The membership for the first month of the current year was almost as great.

The Department of Pedagogics in Indiana University enrolls 54, with 25 specialists; nine of this number are seniors.

A. CORRECTION.—*Mr. Editor:* In the September issue of the Ind. School Journal, Supt. L. O. Dale, of Wabash county, in his paper on Common School Revenues, mildly charges me with asserting, before the Northern Indiana Superintendents and Teachers' Association held last April, that "pupils who are absent for three days and then dropped from the roll, are enrolled as new pupils upon entering again, and thus the enrollment doubled in many cases." With due courtesy to Mr. Dale I wish to say that I made no such assertion. My exact words upon the occasion referred to were as follows: "By reference to page 11 of State Supt. La Follette's last report you will find that, when a child has temporarily lost his membership through a three or five days' absence rule, or any other cause, 'in a vast number of schools such pupil upon his return is enrolled as a new pupil, and so greatly increases the per cent. of the enrollment upon the enumeration as returned in the annual reports.' *This is not true of the cities.*"

It is easy to refer to his report and determine whether or not I misquoted Supt. La Follette. Mr. Dale did not at Columbia City or in his paper Charge Mr. La Follette with making "a misleading statement concerning our schools in rural districts." In behalf of the cities I promptly denounced his statement as, not "misleading," but untrue. As far as I know the statement is yet unchallenged in its application to the rural schools.

R. I. HAMILTON.

A MAGIC SQUARE.—This is what is called a "Magic Square":—

8	3	4
1	5	9
6	7	2

The nine figures are so placed that if you add any row of them, either across, up and down, or diagonally, the sum is 15.

The sum of the corner figures is 20.

The sum of the figures between the corner spaces is also 20. This is four times the center figure, 5.

The sum of all the nine figures is 45, which is the sum of nine multiplied by the central figure.

The sum of any row of these figures (15) is the product of the center multiplied by 3, the square root of 9.

THE STATE TEACHERS' ASSOCIATION will be held in Plymouth Church, and Rev. Myron W. Reed will deliver the annual lecture—subject: "Choice of Books." Have arranged for "Symposium," at which time "The Apportionment of School Revenues" will be discussed. H. M. La Folette, L. H. Jones, E. G. Machan, J. W. Denney, J. N. Study will discuss the various phases of this question. Miss N. Cropsey prepares a paper on "Froebel's Education of Man," and Miss Adelaide Baylor of Wabash and Miss Hattie Gary of Rising Sun will discuss the paper. T. J. Sanders of Warsaw will have a paper on the "Nature and End of Education." This will be discussed by Supt. F. M. Stalker of

Bedford and Alpheus McTaggart of the State Normal. Supt. R. I. Hamilton will read a paper on "Civics in the Public Schools," discussed by Supt. B. J. Bogue of Mishawaka and Supt. C. W. McClure of Brookville. Mrs. Mary V. Mustard of Bloomington will read a paper on "Children's Savings Banks."

The plan is to have much more music than heretofore. Profs. Hart and Hufford have the matter in charge, and I understand have completed arrangements for music each session of the General Association. The papers are limited to 30 minutes; discussion to 10. The Executive Committee have requested the President to run on time and this meets his approval.

The High School and the Village and Country School Sections have about completed interesting programs. All will be ready for the December number of the Journal. I have not seen Mr. Yoke since I was in Indianapolis, but suppose the usual terms with railroads will be secured.

The Association last year fixed the time of the next meeting for December 29, 30, and 31.

D. W. THOMAS.

THE STORY OF GRUMBLE TONE.

There was a boy named Grumble Tone, who ran away to sea,
 "I'm sick of things on land," said he, "as sick as I can be!
 A life upon the bounding wave will suit a lad like me!"

The seething ocean billows failed to stimulate his mirth,
 For he did not like the vessel, or the dizzy rolling berth,
 And he thought the sea was almost as unpleasant as the earth.

He wandered into foreign lands, he saw each wondrous sight,
 But nothing that he heard or saw seemed just exactly right,
 And so he journeyed on and on, still seeking for delight.

He talked with kings and ladies fair, he dined in courts, they say,
 But always found the people dull, and longed to get away,
 To search for that mysterious land where he should like to stay.

He wandered over all the world, his hair grew white as snow;
 He reached that final bourne at last, where all of us must go;
 But never found the land he sought. The reason would you know?

The reason was that, north or south, where'er his steps were bent,
 On land or sea, in court or hall, he found but discontent;
 For he took his disposition with him everywhere he went.

—Ella Wheeler Wilcox.

PERSONAL.

A. H. Sherer has control at Carthage.

M. D. Avery is principal of the schools at Zionsville.

A. F. Mitchell is principal of the Bloomingdale Academy.

Walter Saylor, formerly of Logansport, is now a Chicago lawyer.

John F. Engle, of Lexington, is now in charge of the Orleans schools.

H. P. Leavenworth, Supt. at Mt. Vernon, reports everything O. K. in his "neck of the woods,"

James B. Shaw, Jr., of La Fayette, has accepted the professorship of Physics and Mathematics in the Illinois College at Jacksonville.

Miss Annie Miller, formerly of Jeffersonville, is now principal of the high-school at Abeline, Kan., and is pleased with her position.

Jonathan Rigdon, late of Danville, Ind., and author of Rigdon's Grammar, is pleasantly located in Boston, and is hard at work. He is always hard at work.

Geo. F. Bass, of Indianapolis, has two or three first-class lectures which seem to be in demand. If you want him in your lecture course this winter write him.

J. V. Coombs, who a year or two ago left the teachers profession for that of the ministry, has recently accepted a call to a California church at a salary of \$1,800.

Chas. E. Hodgins, a state normalite and an Indiana teacher, has been for five years past principal of an academy at Albuquerque, New Mexico. He and his school are prospering.

W. R. Garrett, President of the National Association, has appointed a committee to arrange for an International Educational Congress, to be held in connection with the World's Fair.

J. T. Merrill, for nearly at quarter of a century at the head of the La Fayette schools, has been elected superintendent at Cedar Rapids, Iowa. Mr. Merrill stands ahead of all Indiana superintendents in length of term of service. His many warm friends regret very much to have him leave the state in which he has done such faithful service for so many years.

J. J. Mills, President of Earlham College, is President of the College Section of the National Educational Association, and is making a vigorous effort to make his section a success next year. College faculties as a rule are not as progressive as are public school men, but they should be, and must be if they continue to exert a leading influence in the educational work of the country.

E. S. Clark, formerly superintendent at Aurora and Mt. Vernon, is now superintendent of Henderson, Ky., and has been since 1885. In that time his schools have prospered wonderfully. One building has grown to five; the enrollment from 700 to 1700; the teachers from 15 to 30; the high-school from 30 to 100. Six private schools have suspended and the public schools are very popular.

DIED—At his home in Huntington, Ark., Aug. 13, 1890, Orlin Phelps, aged sixty-eight years.

The above announcement has just come to our notice. Mr. Phelps was for a long time a leading Indiana teacher. He was for two years—1860-61—editor of this journal, and resigned the place because his health demanded another climate and he was compelled to leave the state. At the time of his death he

was superintendent of the schools at Huntington. He is remembered as a vigorous thinker, a hard worker, a christian gentleman of high moral convictions. Of his six sons, four of them became teachers—one, Orlin H., became his successor at Huntington; another, D. A., is a lawyer in Cincinnati.

The following from a Leavenworth, Kan., paper, will be read with interest by numerous friends, as Mr. Cooper was for many years one of Indiana's most respected school superintendents:

"Prof. John Cooper and wife, accompanied by their accomplished daughter, Miss Nellie, leave this morning for New York City, where they expect to take up their abode, at least for the present

In the removal of Prof. Cooper and family from our city, Leavenworth loses one of its best families. In the loss of Prof. Cooper it loses one of the most highly respected and upright gentlemen who has ever identified himself with our interests. He has made hundreds of warm personal friends while superintendent of our schools, all of whom will wish him an abundance of success in whatever avocation he hereafter labors."

E. E. Griffith, for several years past superintendent of the Frankfort schools, and recently a candidate before the Democratic convention for the office of Supt. of Public Instruction, has been appointed Supt. of the Institution for the Blind *vice* H. B. Jacobs, resigned. This is a place of honor and responsibility, and Mr. Griffith has in a high degree the qualifications to fill all the requirements. If he will follow the example of his predecessor and rise above partisan dictation and place the welfare of the Institution above party, he can make for himself an honorable name and hold the position at his option without regard to what party controls the state. The Journal wishes Mr. Griffith the highest success.

Later.—Since the above was in type, Oct. 25, Mr. Griffith entered the holy bonds of matrimony. The bride is Miss Anna Williamson, of Vincennes, who for some time past has been teaching in Frankfort, where Mr. Griffith was superintendent. She is a lady of culture and refinement and in all respects qualified to be a *companion* of her husband. The Journal extends hearty congratulations and can think of no better wish to make Mr. and Mrs. Griffith than that they may love each other as well twenty years hence as they do to-day.

H. B. Jacobs, formerly superintendent of the New Albany schools, but for several years past Supt. of the Institution for the Blind of this state, has recently been honored by a call to take charge of an Institution for the Blind just opened at Pittsburgh, Penn. A committee from Pittsburgh, in order to get ideas and suggestions that might be turned to profit in the management of their own school, last spring visited similar institutions in several other states, and among them came to Indiana. This committee were so well pleased with Mr. Jacobs and his management that when their school was ready to open they extended him a call and made the inducements such that he could not resist, so he is again a citizen of his native state.

Indiana has suffered a serious loss in the removal of Mr. Jacobs, as it can ill afford to lose such citizens. He made an excellent superintendent, devoting

his entire time and energy to his work. Further, he did his work with an eye single to the best welfare of the unfortunate children placed under his care. While it is true that he held his place by the appointment of a partisan board, it is also true that he did it with the distinct understanding that *he* and not the board was to manage the details and control the appointments that affected the work for which he was held responsible. While opposing party papers criticised without stint the management of other state institutions, they could never find grounds upon which to base a word of criticism against Mr. Jacobs and his management. This is a high and a deserved compliment.

BOOK TABLE.

TREASURE TROVE is the name of an excellent paper for boys and girls, published by E. L. Kellogg & Co., of New York City.

THE CENTURY, published in New York, continues its high order of excellence. It covers well the field of current literature, and commands the best literary talent of the country.

THE SWINE BREEDERS JOURNAL, published in Indianapolis, should be in the hands of every person interested in raising hogs. It pays to study every kind of business in these times.

THERE has been a great demand for the October *Arena* in religious circles owing to the paper which appears in this issue from the pen of Prof. Sheridan P. Wait on "The Symbolic Character of the Old Testament." The interest which this paper has created indicates that the spirit of inquiry is permeating every religious body.

THE October number of *Architecture and Building*, published in New York City, is devoted largely to school buildings. It gives not only the completed building, but also the ground and floor plans, together with the estimated cost. The variety is great and the issue must be of special interest to those who are thinking in the line of school-house building.

THE new volume of *St. Nicholas* will, it is announced, contain a number of serials by prominent writers for the young. J. T. Trowbridge, author of "The Tinkham Brothers' Tide-Mill," a continued story of great interest and lasting popularity among boy readers of *St. Nicholas*, and their sisters, will contribute a long serial entitled, "The Fortunes of Toby Trafford."

D. C. HEATH & Co., of Boston, publish *Practical Lessons in German Conversation*, prepared by A. L. Meissner, M. A., Prof. of Modern Languages in Queens College, Belfast. The lessons are so prepared that they can be begun early in the study of German. They are conversations upon ordinary, every-day topics, and are graded to suit the advancement of the pupil, proceeding from the simple to the more difficult. It seems to the writer to be not only a very useful but a very necessary accompaniment to the daily use of the grammar.

EPITOMY OF THE WORLD'S HISTORY, is the name of a new book, the first volume of which is out, by Edgar Sanderson, and published by the Boston School Supply Co. It covers the ground of ancient, mediæval, and modern history, and gives special attention to civilization and the progress of mankind. The first volume brings the history down to the beginning of the fifteenth century. The book is written in a clear and easy style. The work of the publishers is to be heartily commended.

POOR RICHARD'S ALMANAC forms the contents of a late number of the Knickerbocker Nuggets, edited by Paul Leicester Ford, and published by G. P. Putnam's Sons, New York. This is a most convenient form in which to have and preserve these interesting and curious specimens of early American literature. The Almanac in 1773 was a part of literature, but in our day it has given way to worthier efforts. We have the Calendar, and the daily official report of the Weather Bureau—one to furnish us sentiment appropriate to the day and season, the other to warn us to prepare for climatic changes.

AN EASY METHOD FOR BEGINNERS IN LATIN has been issued by the American Book Co. It is prepared by Albert Harkness and is uniform with the other books belonging to the Harkness series. It is not a mere companion to the grammar, but is a practical guide for the pupil in the work of reading, writing, and speaking Latin. It might be called the *sentence method* of learning Latin, for in the very first lesson, without a word of the grammar, the pupil is introduced to a complete Latin sentence. The exercises throughout are largely conversational, and they are made to pertain to every-day life as far as possible. The book is illustrated, and in every way has been made attractive as possible.

LEE & SHEPARD, Boston, publish for supplementary reading, four illustrated volumes, which they call Geographical Readers. These have been arranged and written by Chas. F. King, Master of Dearborn Grammar School, Boston. Part I. is generously illustrated, the pictures being not only attractive but very instructive. Next in value to seeing the place itself is to examine and study a faithful picture of a locality, and this is a great recommendation for these books. The subject-matter of No. 1 is adapted to the capacity of pupils in the lower classes in grammar schools. These books can be used with great advantage at home as well.

GLIMPSES OF FIFTY YEARS is the title given the autobiography of Frances E. Willard. The book is dedicated "To Mother, as a birthday gift on January 1, 1889,—the 85th anniversary of her undaunted life, I dedicate her eldest daughter's self-told story." 1839–1889. The volume contains nearly seven hundred pages, and not one of them is lacking in interest. Miss Willard is known the world over as the leader of the W. C. T. U., and she is a woman that every loyal-hearted American must be proud of. The book sketches her childhood, school and college days, her teacher life, and then her devoted temperance work. No one can read the book and not be interested and ennobled.

NO. 8 IN THE RIVERSIDE LIBRARY FOR YOUNG PEOPLE is entitled *Girls and Women*, by E. Chester. This is a most pleasing little book, abounding in good

practical advice to young girls, told in a pleasing and forcible manner. The writer begins her book by asserting that the *grand aim* in all lives should be the same, but the particular aim must vary with the tastes and gifts of the individual. A girl who would live a rounded and complete life must enjoy health; it is better for her too if she is so situated that she must be self-supporting. The book considers the necessity of culture for women, the art of hospitality, the importance of controlling the emotions. A chapter headed "Bric-a-brac" contains some excellent suggestions in regard to christening gifts. We sincerely hope the book will find many readers among the girls of Indiana.

Houghton, Mifflin & Co., Boston.

PRACTICAL EDUCATION, published by E. L. Kellogg & Co., New York, is written by Chas. G. Leland, late director of the public Industrial Art School of Philadelphia. This seems a very excellent book for any teacher. Mr. Leland devotes a large part of the book to Industrial or Manual Training. He says all children have a capacity for art, some for useful arts, others for that which is ornamental. All children like to *make* something, and this innate taste for construction and decoration can and should be developed. Such training gives its possessor a better start in his life's work, and carries forward his development symmetrically.

In Part II., devoted to Memory-training, the author not only shows how the memory may be strengthened and developed, but how it may be created. The observations on this subject are worthy the careful study and attention of every teacher.

Mr. Leland invites all persons who are interested in forming classes or training pupils for the purpose of instruction according to the principles laid down in "Practical Education" to correspond with him, proposing to give them the benefit of his advice and experience.

WOOD'S HOW TO STUDY PLANTS, published by the American Book Co., has been compiled in its present form expressly for the use of the Teacher's Reading Circle of Indiana. It is based on the plan of Agassiz's work at Penikese. It is the plants themselves that are to be studied, and the book is to be used chiefly as a guide to such study. Willis's Physiological Botany has been incorporated into the same volume that students may acquaint themselves with the latest phases and results of botanical investigation.

CIVIL GOVERNMENT IN THE UNITED STATES: *Considered with some reference to its origin, is a book written by John Fisk and published by Houghton, Mifflin & Co., Boston.*

It is designed as a text book for the use of schools, and at the same time is very entertaining to the average reader interested in the study of the political institutions of his country. Mr. Fisk says that while writing this work, he kept constantly in mind an audience of students such as he has been in the habit of lecturing to in different parts of the United States. Mr. Fisk commences the book with the assertion that whenever in any country you find the power that levies the taxes, you have discovered the government. Starting with the town-

ship, he proceeds to the town, county, city, state, and general government, discussing the formation of, the growth, the experiences of each, which finally culminated in the present form of government. The book is very interesting, and we can imagine a class pursuing this study and adopting this book as having a very enjoyable time.

EDWARD BURTON: *By Henry Wood. Published by Lee & Shepard, Boston.* Mr. Wood is also the author of a book entitled, "Natural Law in the Business World." Under the guise of a story Mr. Wood has taken the opportunity to present his views on Christian Science, the true mission of the church, anarchism, and other topics of the day. The story is stiff and awkward at times, but one can forgive this for the very interesting matter contained in the digressions. His theory is that the world can not be made better by external law, that only as you elevate individual character, which is the result of higher thinking, will you hasten the millenium. Reform must begin within, and work outward. The book has been compared with Robert Elsmere. The teaching in Edwd. Burton is by precept, while Robt. Elsmere's example is usually quoted and made prominent. The book is certainly very readable, and suggestive.

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MATHEMATICS IN THE HIGH SCHOOL.

JOHN A. MILLER, ROCKVILLE, IND.

IN the winter of 1889-'90, Prof. Swain, of the State University, and the writer addressed a circular to the Superintendents of the 125 high schools of Indiana, inquiring into the methods of instruction in mathematics, the text books used in the different subjects, the parts omitted from these, etc. The primary object of this paper is to make a statement setting forth the condition of the teaching of mathematics in our secondary schools, in so far as it was determined from the answers received to this circular. It shall be no part of our purpose to construct a "model" course, but we shall discuss the results thus obtained so far as it will enable us to make a comparative study of them. The circular, in the major part, was as follows, together with answers appended in as compact form as possible:

Question. What text book do you use in Geometry?

Answer. Number using Wentworth, 40; using Loomis, 11; Davies, 6; Olney, 6; Robinson, 5; Welsh, 3; Hills, 2; Bradbury, 1; Brooks, 1. No. having no course in Geometry, 4.

Ques. What parts are omitted? *a* Of the text. *b* Of the exercises.

Ans. Those using Wentworth, 13 omit none; 23 omit Solid Geometry; 4 omit more. Those using Loomis omit Solid Geometry.

Ques. Are the omissions made—*a* For lack of time? *b* Because too difficult?

Ans. *a* Generally, yes. *b* 15 indicate that some are.

Ques. How many weeks are devoted to the subject?

Ans. Greatest No. in any school, 72. Least No. in any school, 12. Average No. in schools of the state, 30.5.

Ques. What is your text book in Algebra?

Ans. No. using Robinson, 6; Milne, 11; Ray, Pt. I, 11; Pt. II, 15; Thomson, 3; Wentworth's Shorter Course, 11; Wentworth, 15; Wells, 33; Olney, 7; Loomis, 3; various others, 5.

Ques. What parts (if any) are omitted—*a* Of the theory? *b* Of the exercises?

Ans. *a* Generally, Logarithms and what follows, or Permutation
et seq. *b* Generally none.

Ques. Are the omissions made—*a* For lack of time? *b* Because too difficult?

Ans. Generally, yes.

Ques. How many weeks are devoted to the subject?

Ans. Greatest number in any school, 72. Least number in any school, 18. Average number in the schools of the state, 55.5.

Ques. How have you succeeded in getting Mathematics taught compared with English, Latin, Science?

Ans. Number reported taught better, 29; poorest, 3; equally as well as either, 37.

Ques. What other mathematical subjects are taught in the high-school course?

Ans. Arithmetic taught in 49 schools 27 weeks. Book-keeping taught in 16 schools 26 weeks. Trigonometry taught in 13 schools 12 weeks.

Ques. What per cent. of the whole time of your high-school course is devoted to Mathematics?

Ans. Greatest per cent. 52; least, 9.1; average, 26 $\frac{3}{4}$.

This table presents a very condensed statement of the contents of 83 answers. It is not exactly true for any one of them, but rather a composite picture of all. In fact, a correct answer to questions 3 and 6 can not be tabulated. The answers were as varied as they could well be; there being very few that agreed touching all points. On an average the high-schools of the state complete what is equivalent to Plane Geometry as it is treated in Wentworth; including the solution of the original exercises. Only eighteen schools attempt plane and solid geometry. There were only eight superintendents who indicated definitely what "originals" were omitted, but it was estimated that about three-fourths

are solved. And when propositions in the theory or exercises in the lists are indicated as those omitted there is no sort of agreement among them. Nor indeed do those which devote the most time to the subject, always cover the most ground. This may be accounted for in either one of two ways—the geometry may come earlier in the course, or it may be done more thoroughly.

The great proportion of “originals” solved by these high-school students is encouraging to all lovers of mathematics. In a paper read before the State Teachers’ Association in 1888 Prof. Swain said: “The great weakness which the high-school graduate shows in geometry, is his lack of ability to apply to the solution of problems the propositions which he has already learned, and a tendency to depend upon his memory rather than his reason. This, by no means, applies to all, but it applies to too many. It is too common that he is only familiar with the propositions fully demonstrated in the text, without being able to solve original problems. A certain amount of drill in the use of language and logic, may be obtained by a study of the propositions in the text, but a knowledge of geometry, its uses, and the best disciplinary value, can only be obtained by the solution of a properly graded series of problems, involving the use of demonstrated theorems. The best way to fix theorems in the mind is the by their application in practice. * * * When a student is taught to give his own solution to problems, he finds much more interest, inspiration, and culture in it.”

There seems to be a marked change in the importance attached to the solution of exercises in geometry. Until recently little seems to have been done in this direction, now they are almost universally solved.

I shall quote here an answer that is typical of a small class that we have received, and one, too, which I think should and believe will, grow larger: “Pupils do individual work in exercises; that is, all *must* do a certain number of original problems, but some do more than others. Part of the pupils do not complete all in Wentworth (the text in use); others do all and exercises from Chauvenet in addition.”

This is gratifying from a pedagogical, as well as mathematical, standpoint. The teacher has not only shown herself able to make the machinery of the school so flexible that she can adapt the subject to the needs of her pupils, and yet retain the organization intact, but she has also given the student mathematically inclined, a glimpse of the field beyond

the confines of his text-book. We found one unique course; one original in the entire. Space will not permit a full discussion of this course, hence I will quote a portion of the answer:

"It might be said that the pupil gets a good knowledge of the art of Geometry before entering the high school. In the high school they have a four-year course in algebra and geometry, the two alternating at intervals of two or three weeks. The first two years comprises in geometry an introduction into processes of proof by reasoning—a transition from the art stage into the formal methods of the higher text-books, and something beyond. The work is almost wholly inductive. All rules or principles are discovered by the class directed by the teacher's questioning. Books are used almost wholly to furnish lists of exercises."

This course should be studied by teachers of mathematics. Is it essential, is it best that the two divisions of mathematics, form and number, should be studied separately, or should they go "hand in hand," as in this instance? The superintendent of this school could give us at least an indefinite answer.

The answers to question 6 agree much more perfectly than those to question 3. In general the answers leave the impression that the ability of the student to solve quadratic equations is the acme of the teacher's hope and pupil's ambition. This is not universally true, but generally. Very few teachers omit many of the exercises given in the text, and add more from other sources.

If text-books in use are a fair index, thought has been more active among high-school teachers, lately, concerning the treatment of geometry than of algebra. In the former subject, generally, the newer and better books are in use; not so, however, in algebra. The older treatment of the subject is adhered to in almost all instances. It is only fair to say, however, that until recent years algebra had been better taught than geometry; and now some of the work of our best colleges is bearing fruit on branches low enough to be plucked by the high-schools. Some books have already appeared that mark the birth of a new generation of algebra, by authors who treat the subject, not as the statement of so many laws, but as laws that necessarily follow from a few axioms and definitions.

Too many "rules" of our older algebras are mere statements; they are assumed by the pupil or demonstrated by the teacher. In the former instance the pupil fails to get the better part of his mathematics—the "power to reason closely and in train."

Magnitude and multitude form two definite divisions of mathematics; geometry is the type of the one, algebra and arithmetic types of the other, and the difference in time devoted to each of these divisions in our schools is striking. In only two schools of Indiana is any attention given to magnitude until the student reaches the high-school. 'Tis true drawing is taught in the grades, but this treatment of form is not a mathematical one. On the other hand the most systematic attention is given to numbers through every grade, and in the high-school only 60 per cent. as much time is given to geometry as to algebra. The inquiry naturally arises, is this division of time the best one? What is the comparative value of geometry and algebra for purposes of utility and discipline?

Geometry deals with things as they are, with lines, angles, surfaces, volumes. Its symbols are general only in so far as the properties they represent are inherent in every individual of a particular class. In each step of reasoning the reasoner represents to himself definitely the object and relation represented by the symbol used. He "sees" every relation. He interprets every equation he writes. Not so in algebra. The symbols employed here are so general that in any course of reasoning they may as well represent one thing as another. The relations are fixed in the first equation. From thence the student manipulates these symbols according to previously determined laws, and, for the time being, dismisses the object represented by them and deals with abstract relation, returning only to the concrete representation when he makes the last equation and interprets his result. It "occupies and disciplines the mind but does not fill it." For this reason, however, it is the most powerful instrument ever devised by the wit of man for seeking out and establishing necessary relations, and no less efficient in pointing out the fallacies of erroneous conclusions; but it finds no more applications to the practical arts of life than geometry.

Our deepest concern, however, is not how many pages have been conned; how many weeks are devoted to the subject; how many propositions have been demonstrated or "originals" solved. It is how much of this environment has been made over into pupil; how much is represented by increased power of pupils, and how much is represented "by long rows of books standing in shelves in their rooms." How efficiently and accurately can they draw necessary conclusions from given data, or detect fallacies in argument, whether mathematical or otherwise. We

care only for how much has been assimilated; how nearly they have realized that all of geometry is an explicit statement of relations implied in eight axioms and a few definitions. That all of algebra is likewise implied in a few fundamental conceptions—that all of mathematics is these implications stated explicitly. This is our deepest concern, and nothing of this is found in our statistics. It can only appear in the future educational history of the state.

A WORD FOR YOUNG PEOPLE.

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CHILDREN IN LITERATURE—II.

BY CHARITY DYE.

[NOTE.—The author of "Marjorie Fleming" did not devote his life to Letters, but was known as the "beloved physician" in Edinburgh, where he was born Sept. 20, 1810. He wrote his delightful sketches during his "spare hours" which title he gave his book. He bore the name of his father, grandfather, and great-grandfather, all of whom were ministers and men of power. Dr. Brown showed a rare delicacy of humor in his writings. His sketch "Rab and his Friend" is a fit companion piece to "Marjorie Fleming." So touching is this story of Rab's friends that even the stout-hearted are not ashamed of shedding tears over it.

Dr. Brown loved Sir Walter Scott, and both of them loved dogs. "Rab" is not the only dog-study from the pen of Dr. Brown. He died May 11, 1882.

A most pleasing account of this man may be found in "Pleasant Authors for Young Folks," by Amanda B. Harris. D. Lothrop & Co., Boston. Also in Scribner's for April, 1889.]

MARJORIE FLEMING AND SIR WALTER SCOTT.

From "Spare Hours," by DR. JOHN BROWN.

MARJORIE FLEMING was a real personage. During her brief life of eight years, she was the precious friend and inspirer of Sir Walter Scott. Nowhere does Sir Walter appear more charming than in the companionship of his "Pet Marjorie" or "Maidie," as he called her.

Through Dr. Brown we can see Scott as he sat down in his large, green morocco elbow chair and "glowered" and "gloomed" at his writing apparatus, taking out his paper, but he could not work. He must "awa' to Marjorie." In a few minutes he had his plaid and he and his hound, Maida, were off making their way through the snow, which Scott likened to a frosted plum cake. They went to Mrs. Keith's, No. 1 North Charlotte Street, where Marjorie was to be found. Scott had a key to this

house and was there almost every day. When he and the hound were in, Scott called, "Marjorie! Marjorie! where are ye, my bonnie weecroodlin doo?" In a moment Marjorie was in his arms receiving kisses. Mrs. Keith said, "Tak' Marjorie, and it on-ding o' snaw!" Scott said to himself, "On-ding—that's odd—that is the very word." He took out his plaid, a true shepherd's plaid, made to hold lambs, and wrapping Marjorie in it they were soon back in Scott's own room together, making the house ring with their laughter. Scott would stand before Marjorie and begin to say his lesson, which was, "Ziccotty, diccotty, dock, the mouse ran up the clock, the clock struck wan, down the mouse ran, ziccotty, diccotty, dock." He would repeat this till Maidie was pleased, and then she would give him a new lesson, slowly timing it upon her small fingers, Scott saying it after her,—

"Onery, twoery, tickery, seven;
Alibi, crackaby, ten, and eleven;
Pin, pan, musky, dan;
Tweedle-um, twoddle-um,
Twenty-wan; eerie, orie, ourie,
You, are, out."

He used to say when he came to "Alibi, crackaby," he broke down, and that "Pin-pan, musky-dan, Tweedle-um, twoddle-um made him roar with laughter. Then he would take Marjorie on his knee and she would repeat Constance's speeches to him till he would sob and sway to and fro. Scott used to say, "She's the most extraordinary creature I ever met with, and her repeating of Shakespeare overpowers me as nothing else does."

Marjorie's face is said to have resembled Scott's; it is described as a chubby, healthy face, deep set, brooding eyes, as eager to tell what is going on within as to gather in all the glories from without; quick with the wonder and the pride of life: they were eyes that would devour their object and yet were child-like and fearless. The precocious development of this child seems marvelous, when we read of what she said and did; but Dr. Brown says that her letters and Journal are as really Marjorie's as her own bright hair.

Here is her first letter before she was six, just as she wrote it:

"My Dear Isa,—I now sit down to answer all your kind and beloved letters which you was so good as to write to me. This is the first time I

ever wrote a letter in my life. There are a great many Girls in the Square, and they cry just like a pig when we are under the painfull necessity of putting it to death. Miss Potune, a Lady of my acquaintance, praises me dreadfully. I repeated something out of Dean Swift, and she said I was fit for the stage, and you may think I was primmed up with majestick Pride, but upon my word I felt myself turn a little birsay,—birsay is a word which is a word that William composed which is as you may suppose a little enraged. This horrid fat simpleton says that my Aunt is beautifull, which is entirely impossible, for that is not her nature."

Marjorie's Journal tells of her struggles with herself—growing out of her religious nature. In one place she speaks of reading the book of Esther, and makes her comments upon it. In another, she tells of the plague the multiplication of "eight times eight" and "seven times seven" is to her. We quote from her journal:

"This is Saturday and I am very glad of it because I have play half the Day and I get money too but alas I owe Isabella 4 pence for I am finned 2 pence whenever I bite my nails. Isabella is teaching me to make simme colings nots of interrignations periads commoes, etc. . . . As this is Sunday I will meditate upon Senciabie and Religious subjects. First I should be very thankful I am not a begger."

"The year before she died, when in Edinburgh, she was at a Twelfth Night Supper at Scott's, in Castle Street. The company had all come—all but Marjorie. Scott's friends were there,—and all were dull because Scott was dull. 'Where's that bairn? what can have come over her? I'll go myself and see.' And he was getting up, and would have gone; when the bell rang, and in came Duncan Roy and his henchman Tougald, with the sedan chair, which was brought right into the lobby, and its top raised. Ant there, in its darkness and dingy old cloth, sat Maidie in white, her eyes gleaming, and Scott bending over her in ecstasy,—'hung over her enamored.' 'Sit ye there, my dautie, till they all see you'; and forthwith he brought them all. You can fancy the scene. And he lifted her up and marched to his seat with her on his stout shoulder, and sat her down beside him; and then began the night, and such a night! Those who knew Scott best said, that night was never equalled; Maidie and he were the stars; and she gave them Constance's speeches and 'Helvellyn,' the ballad then much in vogue, and all her repertoire,

Scott showing her off, and being oftentimes rebuked by her for his intentional blunders."

During her last illness, when she was asked if there was anything she wished: "O yes!" she said, "if you will leave the room-door open a wee bit, and play "The Land o' the Leal," and I will lie and think, and enjoy myself." A few nights before she died Marjorie was allowed to come from the nursery to the parlor, and as her father walked up and down the room with her, she repeated lines from Burns to him. She asked to be allowed to write a poem just "this once," and her little slate was given her, and she wrote the following,—the last thing she ever wrote:—

"Oh, Isa, pain did visit me,
I was at the last extremity;
How often did I think of you,
I wished your graceful form to view,
To clasp you in my weak embrace,
Indeed I thought I'd run my race:
Good care, I'm sure, was of me taken,
But still indeed I was much shaken,
At last I daily strength did gain,
And oh, at last, away went pain;
At length the doctor thought I might
Stay in the parlor all the night;
I now continue so to do,
Farewell to Nancy and to you."

She went to bed seemingly well, but awoke in the night crying, "My head, my head!" and in three days, on December 19, 1811, came the end to her brief life of eight years, measured by time—but of never ending influence measured by eternity.

THE VALUE OF OBSERVATION WORK AS A MEANS OF TEACHING READING.

BY LOTTIE E. JONES, DANVILLE, ILL.

THERE appears to be an uncertainty in the minds of many teachers regarding the best means to be adopted for the teaching of reading to little children who have just begun their school life.

This uncertainty arises, in some cases, from an ignorance of the laws

of mental growth, and in other cases it comes from a devotion to traditional ways which exalts means that would otherwise be discarded.

As a result, we hear of methods or combinations of methods which, as means of teaching children to recognize words as signs of ideas will not bear the test, either of "being of the order of ideas that constitute the science," or of "the order of procedure by which the child's mind is developed and knowledge gained."

These, then, must be considered simply devices, and must be admitted to be very poor devices as well.

Words are of value, only as they are expressions of ideas. Ideas are gained as a result, which presupposes the action of sense-impression as a passive factor, as well as apprehension as an active factor in bringing the impression into proper relation and transforming it into perceptions.

Printed or written words taught, not as wholes, but by building, either using names of letters or sounds which these characters represent, express no idea, and must finally be presented as wholes and be associated with the thing for which they stand, else no thought is gained.

The only method worth the name is the one which presents a word to the pupil as an expression of *his* idea, as a symbol which recalls his idea, and waits to deal with it as a word until it becomes, itself, an object to him. By any other means the result is, the pupil's simply calling memorized words under the impression that he is reading.

Most Primers and many First Readers are arranged upon the plan of this false method, which is based upon what may be called the Elementary Theory. This needs but to be compared with Nature's plan of teaching children up to the school age, to have its pernicious effects appreciated.

The question may arise regarding the time it takes for the word to become an object to the learner; but it can be no question that this *follows*, not precedes the time it is simply an idea. Hence the folly of attempting the tearing to pieces a word, or otherwise learning the power of its parts, that it may be again built up, either by letter or sound, before the pupil has learned to read. And, as well, the certainty of his being able to reproduce the exact form of any word, if it has been so thoroughly learned that it has become an object to him.

The teaching reading by means of object lessons meets with the greatest success, where the teacher understands thoroughly how to lead the children to observe most closely, and to express their thoughts most ac-

curately and clearly. The object chosen must be in accordance with the force of the interest they awaken in themselves, and in the possibilities of the conditions and relations of thought they arouse.

Attention is secured and interest held the stronger, the nearer the objects approach life. I use the ball as the first gift for the same reason that it is the first gift selected by Fröbel. An immediate dealing with life is impossible, because so many children have been taught to shun insects, etc., as "nasty bugs." But it is in handling these same "nasty bugs" that the little minds have the opportunity for growing in a way most pleasing to the little people.

The words are, at first, expressions of the boy's thought, before they are representations of another's thought, therefore they must be governed by ideas developed. When the idea is aroused, the word that most fully and accurately expresses such idea must be given, regardless of its size when written. This means of increasing the vocabulary lays the foundation for the best after-work in composition.

Actual results often convince where theories fail; because of which I append the lessons read by children at the close of the first month of the present school year. The words were all readily recognized in printed or written forms, although they have not yet, in my opinion, become objects to be separated into parts.

The lessons are given in the order they were developed as results of careful observation on the part of the class:—

a ball.	
a peach.	I see a ball.
a cup.	I see a leaf.
a fly.	I see a fly.
a leaf.	I see a peach.

A fly has six legs.

A boy has two legs.

A leaf has a stem and a blade.

This leaf has a sharp apex.

This leaf has a rough apex.

My leaf has a broad base.

Ida has a lilac leaf.

Walter has a geranium leaf.

Do you see this leaf?

A peach is round like any sphere.
So is a cherry and a grape.
A peach is sometimes green and sometimes yellow.
Sometimes one side is red.
A peach has skin, flesh, and a stone.
The skin is rough and thin.
It is translucent.
The flesh is sweet.
The stone is hard. It is the seed.

A fly is an insect.
A fly has a head, a thorax, and an abdomen.
It has two wings and six legs.
A fly has two compound eyes.
It has hairs on its legs.
It cleans its face with them.
A fly's wing is transparent.

These lessons being written on the black board, are afterward put into print, and show a knowledge of the form of more than fifty words gained in less than five weeks; not to mention the increase of thought power on the part of the earnest little men and women who have had eyes opened, ears quickened, and lives already broadened, and been made better boys and girls, by contact in an intelligent way with other life.

THE A B C'S OF JESUS—III.

BY HUBERT M. SKINNER.

THE study of the letters is deemed a work for children rather than for adults; and from a period extending far back of the Savior's youth, the acquisition of an alphabet has been peculiarly the task and the triumph of childhood. Yet there is much to be gained from alphabetic study by grown people and by the educated, and volumes may be written upon the history, the relations, and the powers of those marvelous characters by means of which thoughts are recorded and language is expressed.

As it is only by comparing our forms of speech with those of other tongues than ours that we come to appreciate the beauty and value of the English grammatical structure, so it is only by studying other systems of letters that we distinguish the superiority of the system which we pos-

ness. For such comparison the alphabet of the Savior may well be chosen, for a double reason. A natural interest, an ineffable charm, attaches to everything connected with the Master's life; while the letters thus hallowed by His use in childhood and manhood present the sharpest contrast with our own.

Dr. Oliver Wendell Holmes, whose birth occurred in the same year and month and on the same day when Dr. Samuel Johnson was born, but a century later,—tells us that it was his habit and his joy from boyhood to 1884, year by year to look back across the century and see the great Doctor at his own age; to look into the never-failing mirror of Boswelliana and know what Dr. Johnson was thinking and saying and doing when *he* was so-and-so-many years old. In the same way the child at his earliest studies may look back upon that other Child whose work was in its nature the same.

In one important respect the Hebrew alphabet was like the ancient Latin, and unlike our own and that of the Greeks. There was but one form for each letter. It is easy to see the difficulty that Cæsar and Virgil would experience now, could they come back to earth,—in attempting to read their own Commentaries and Aeneid; for, as we print their works now, we employ chiefly the small letters, which are a later invention, unknown to these ancient writers. We have thus a double alphabet, consisting really of fifty-two printed letters, instead of twenty-six; and when we include the script letters, large and small, it will be seen that we possess an alphabet of one hundred and four letter forms, to say nothing of italic and other variations.

Without this differentiation into large and small letters, our written language would be the loser in grace and in meaning. Note, for instance, the expression of reverence for the Deity; the respect for Her Majesty, and His Royal Highness; the loyalty to the Nation; the dignity of the pronoun I, and the force of the interjection O,—all expressed by the mere change of the font by the type-setter. The A B C's of Jesus were, as has been stated, but twenty-two in number, and these were required to answer every purpose in recording thought, and even in expressing numbers—for the Jews were not the fortunate possessors of the beautiful Arabic figures of the later world.

Our own letters were formerly used as numerals to a far greater extent than we are apt to think. Not only were those now commonly known

as Roman numerals thus used, but others were made to do similar service. Thus, B represented 300; E, 250; R, 80; T, 160, etc.

We are glad to be rid of a system so clumsy and tedious, which would prove utterly inadequate to the mathematical uses of the present day. Yet the numerical system of the Jews was much worse than the old Roman system. Some of the different letters of the Hebrew alphabet are so nearly alike that even now, when they are printed from clear-faced metallic type, it requires sharp eyes to distinguish them. Moreover, a slight mark added to the letter used as a numeral very greatly changed its value.

I am confident that it will offend no reasonable lover of the Scriptures to state that many of the numbers given in the Old Testament must be received with caution, as it has been impossible in many cases for translators of the Old Scriptures to recognize the letters with certainty, and a slight error in mistaking a letter or a mark would make a great difference in the resulting number.

Since the letters possessed numerical values, the sum of those in any single name would equal a certain number, readily ascertainable. Much interest, therefore, has attached to the problem presented by the Evangelist (Revelation xiii, 18): "Here is wisdom. Let him that hath understanding count the number of the beast: for it is the number of a man: and his number is six hundred three score and six." Various names have been brought forward by expositors of various faith, to satisfy the numerical value here stated.

Perhaps the most singular feature of the alphabet of our Lord was its almost total absence of written vowels. The letters were consonants, and were generally exclusively consonantal in their nature. The vowels of a word were left to be supplied by the reader. The correct vowels to be inserted in any word were known only through the oral transmission of the word from age to age. In case any word should remain unpronounced for a generation, its proper vowels would be lost; and once lost, they could never be with certainty restored.

It will be said, perhaps, that such an instance would never occur. And yet, just such an instance *did* occur. The Scripture name of God, JHVH, was deemed too sacred to be uttered; and wherever it was to be used, the word *Adonai*, or Master, was substituted. What were the vowel sounds needed to render pronounceable the name of God, is a question

which can not be satisfactorily answered. By common consent, we make use of *e*, *o*, and *a*, thus forming the name *Jehovah*. But the mystery of the lost vowels will never be solved. To this, it would seem, the Evangelist refers, in his description of Faithful and True, the leader of the celestial armies: "And he had a name written, that no one knew but himself." The sounds of the vowels are now indicated in the Hebrew vowel points, placed generally below the letters, sometimes above or beside them, and giving to the later Hebrew books something the appearance of having been peppered from a spice box.

We have but a single recorded instance of the Savior's writing, and on the occasion given he wrote not on paper nor on wax, but "stooped down and with his finger wrote on the ground."

From a peculiar and serious fault of the Hebrew writing, our language is happily free. Our letters are written from left to right. Those of some oriental nations, notably Chinese and Japanese, are ranged in perpendicular lines. The letters which Jesus used were written from right to left. Were the Jews, as a people, left handed or ambidextrous? The suggestion is absurd. The idea of right and left is clearly manifest, through and through the Scriptures, Old and New. By our system of writing from left to right, the hand does not hide its work from the eye; there is a better play of the muscles of the arm; and for these and other reasons there is greater speed and accuracy. But the Jewish system, while unsuited to the demands of the later ages, was well enough adapted to the slow and meditative reading and writing of the earlier world.

Longfellow has given it a beautiful poetical significance in these lines, written in the quaint old Jewish cemetery at Newport:—

"And thus, forever with reverted look,
The mystic volume of the world they read,
Spelling it backward, like a Hebrew book,
Till life became a Vision of the Dead."

SOME OF OUR BAD HABITS.

AUTHOR OF "PRESTON PAPERS."

AS TEACHERS, we are not infallible, but we should not allow ourselves to make the same mistake twice. Keeping our eyes open we shall find that we do—but ought not,—

1. Talk too much. "A word to the wise is sufficient."
2. Do what our pupils *should*, in their work. We might as well eat their dinners for them.
3. Do what our pupils *should not* do—thereby setting them a bad example and weakening our influence with them.
4. See too much. Blessed, twice blessed, are they who know just when not to see.
5. Make more point of "How much?" than "How well?"
6. Give too much prominence to "How?" too little to "What?"
7. We neglect our professional books, papers and magazines, and so grow rusty before we know it. Too much "resting on our oars" weakens us—but, were it not for these and a few kindred faults we should be angels. We are not *altogether* a "bad lot," even though we do make "mistakes." "To err is human"—but let us not be so thoroughly unhuman as to rest on our oars, knowing our deficiencies but never striving to correct our faults or improve upon our successes. Let us, the rather, seeing our faults,—

"Build the ladders by which we rise
From the lowly earth to the vaulted skies,
And mount to its summit, round by round."

EVERY explanation, every particle of showing, every bit of the pupil's work that the teacher does—whenever, in brief, she does anything for him that he can do for himself, she has not only robbed him of an opportunity to discover, to think, or to do, but she is building up a habit that will result in making him that drone in the world's hive, and that unhappy nuisance in society—a helpless, despondent man or woman.—*Quincy Methods.*

IT must be clear that weight of moral character is essential for high success in teaching. The teacher can exercise influence over the scholars only according to what is in himself. He can not lift them higher than he is himself, or induce them to attempt to reach an eminence which he himself is not striving to attain. For above every consideration, as a pledge of success in professional work, is the possession of high moral character.—*Calderwood.*

DEPARTMENT OF PEDAGOGY.

[Conducted by ARNOLD TOMPKINS.]

THE MATERIAL FOR SENSE HISTORY.

THIS article is written in the light of the two-fold purpose of Sense history: 1. To furnish the imagination material out of which it can construct pictures of historical events; 2. To train the judgment to infer the thought and feeling of a people from their deeds. The matter presented is intended to be merely suggestive—to indicate the lines of work which this phase of history opens up to the teacher. This work presupposes two things: 1. That the pupil has been in school two or three years, and has finished the Sense phase of geography, except that part dealing with man and his institutions; 2. That the teacher sees the intimate connection between Sense political geography and Sense history.

In opening up a new field of study to the immature mind, the point of beginning is a question of some importance. If the subject is a difficult one, the part taken up first is determined by the principle that the mind deals most easily with material familiar to it through frequent and intimate experience. With which institution shall the child begin his observation? In obedience to the principle stated above, we must find that institution in which the acts of man fall easiest within the limits of the child's powers, and that one where customs and ideas have entered most fully into his every day life. The institution that has furnished him the widest range of concrete and sensuous experience must furnish the material for the first series of lessons.

These conditions seem to be most fully met by the family. Into this institution the pupil was born nine or ten years ago. He has differentiated himself from the rest of his young friends by recognizing himself as a member of a certain family, and has put them into groups on basis of family connections. His wants and desires have been supplied by the family, and around it and its members his affections have twined themselves. These few facts, and many more akin to them, seem to point to the family as the form of institutional life with which the work may most easily and profitably begin. The question is now what the family furnishes for his observation that will aid in the study of the social life of a past age—will aid in picturing their life of customs and deeds and in

making inferences from these as to their thought and feeling. The following topics point the way toward the answer:

1. The relationship between parents and children. The main ideas here are the parents as law givers and the children as obedient subjects. The pupil can see himself under a rule of action common to each member of his related group, and must see some of the results that attend obedience and disobedience. These are ideas that he will meet many times, and in Bible history he will be called on to construct a system of government built out of the family tie. Wherever the family is met, he should picture the home and its relationships.

2. Relation of the family to food, clothing, and shelter. This will bring the pupil to study a subject that has touched him very intimately. The common duties that he has to perform, as a member of the family, can be traced so that he will see their relation to his physical wants. The lesson of mutual dependence can also be learned—how the physical and social good of each is linked to that of the whole. The position of each member of the family as to ownership in property, and the law and custom of his community bearing on the distribution of property among children, furnish interesting and valuable topics.

3. Relationship between families. This subject opens the whole field of observable social life. The study of customs—particularly those pastimes and games in which people engage for pleasure—will be an inviting field to the young pupil, and, all unconsciously, he will lay up a vast fund of material out of which he will construct the social life of the past—particularly that part of it pertaining to the boys and girls of the olden time.

Intimately connected with the family is the industrial life of the community. We have seen that the pupil has had a wide range of experience relating to food and clothing—the most tangible results of industry. He has felt his dependence upon them in the study of the family, hence it would seem very easy to make the transition from the study of social to the study of industrial life. This new field opens to a wide range of simple observable facts. Here are a few lines that may be worked out:

1. The kinds of occupations and their relation to one another. The lesson of mutual dependence can be taught here again, but on a much wider scale than was illustrated in the family.

2. Effect of different kinds of occupations on the habits and customs of the people.

3. The protection of property by law. From the pupil's own observation, a study must be made of the process by which this is done. This would include the arrest and temporary imprisonment of the accused, summoning witnesses, the trial, and the punishment. In dealing with a concrete case, in which trial and punishment follow as a means to protect property, a good opportunity is offered to judge of the thought and feeling of men as expressed in their acts. What did the owner of the property and his neighbors do, when the theft occurred? Why? The answer must come in terms of their thoughts and feelings. How does the accused man feel, and what does he think? How do you know? Why should he be tried, and what is the purpose in fining and imprisoning him? The pupil may not be able to penetrate and fully interpret all these acts, but this is so vital an act of mind in all historical investigation that the pupil can not begin too soon, and push it as far as his strength will allow.

The study of the school at first hand, so as to get historical material, is more difficult—less concrete—than in the institutions already examined :

1. Something of the intention of his parents in sending him to school may be brought out—its industrial significance, perhaps, but certainly nothing of its higher significance can be inferred by him ;
2. The idea of the free character of the school must be presented to him, with as much of its significance as he can master ;
3. The different grades of schools and their wide distribution will suggest what an ambitious person may do ;
4. How the teacher is selected and paid, and the pupil's relations to him in the school.

The institution we call the church is, in most of its phases, beyond the child's power. But even here something may be done by observation and study :

1. The kinds of religious denominations and their feeling toward one another. In a general way the pupil may see that the people separate into sects because of a difference in thought ;
2. The purpose of the church and Sunday-school determined from the acts they do ;
3. The social customs connected with the church.

There is another very important and still more fruitful field for Sense work in history—the political. The following points may be helpful in suggesting where material in the field may be found :—

1. Every neighborhood furnishes the pupil examples of men set apart by some process to perform the duties of local government. The mode

of selection, the purpose, and duties of such officers should be brought under the pupil's observation.

2. If he lives in town or city, there is still greater opportunity for Sense study—the policeman in uniform, the mayor, the assessor, the men who work the streets, each of these calls for attention and has its own lesson.

3. Political events, especially those connected with state and national campaigns, furnish abundant and valuable material for the ends we have in view. Besides the concrete and sensuous character of the events, they have moved his feelings very intensely—much more so than the events in the other phases of life. The boy, and the girl too, for that matter, has not lived very long until his sympathies have been deeply enlisted in a political campaign. The chances are that long before ten years of age he has participated in more than one political demonstration. Whatever may be said about the desirability of a child participating so early in political prejudices, it is certainly true that it gives him an abundant supply of material to aid in putting content into events of a kindred nature which he will soon be dealing with—events that can only appear to him in the realm of imagination. All the glitter and show, pomp and parade, noise and music of a campaign are not lost on the boy. They have a value for him far beyond the immediate present. Think of the gorgeous picture that flashes before his senses and impresses itself upon his memory—brass bands, great numbers of great decorated wagons drawn by spans of spirited horses and filled with grace and beauty, great men riding in state—governors, senators, statesmen, and orators—uniformed ranks with stately tread, long line of brilliant torches, the flash and flare of fire works, the roar of cannon, the billows of human huzzas, triumphal arches, and banners with inscriptions!

Two boys—one has never seen this picture or the like, while the other has been a part of it—which can picture most fully and vividly a Roman triumph; the celebration of a king's coronation; the greeting that Columbus received on his first return to Spain; the arrival of the royal governor in Virginia; the processions that paid honor to Washington as he passed through the land; the grand review in Washington at the close of the civil war? There can be but one answer. Again, this observation on the part of the pupil gives the teacher a rare opportunity to cultivate the historical judgment. What were his feelings? Why did he participate

in the parade? What was the purpose of the other people in taking part and what was their feeling? Prove the answer. How did the persons who stayed at home and refused to join the demonstration feel? Prove it. By questions, the pupil may be led to analyze the outside show and the inner significance of a political demonstration.

W. H. MACE.

METHOD IN THE SCIENCE OF GRAMMAR.

THE first circle of work, that of thinking individual sentences into unity of a universal attribute, is logically followed by a treatment of the subject matter under the next lower degree of generality, thus beginning the process of logical subdivision. Since the sentence is an organic unit, the process must result in (1) classes of sentences as wholes, and (2) classes of their organic parts.

I shall here do no more than outline the work of this circle.

I. *Class of Sentences as Wholes.*—The same general mental process as before must be employed; viz, that of first distinguishing between the thought and the form; and second, that of thinking the thought and the form into unity. The distinctions in form must be seen as determined by the thought. Hence in grouping sentences into subordinate unities as wholes the basis must be found in the classes of thoughts as wholes. These classes have two bases, (1) the phases of consciousness prominent, (2) and the structure of the thought.

1. As to phases of consciousness made prominent, there are three classes of thought:—

- a. Thoughts with intellectual phase of consciousness prominent;
- b. Thoughts with emotional phase of consciousness prominent;
- c. Thoughts with volitional phase of consciousness made prominent.

These give rise to three sentence forms:—

- a. The Thought sentence, expressing the thought relation as the prominent element;
- b. The Feeling sentence, expressing thought with the emotional element prominent; called the Exclamatory sentence.
- c. The Willing sentence, expressing thought and feeling with the volitional element predominant; called Imperative sentence.

These are all alike in expressing thought; they differ only in the phase of the thought made prominent. They blend imperceptibly into each other.

The mind will be either decided or undecided as to the relation between the subject and predicate; hence sentences must express thoughts as either decided or undecided in the relation under consideration; thus subdividing the Thought sentence into the two classes, Declarative and Interrogative. Thus we have three classes with a division of the first.

In dealing with these classes the pupil should be supplied with all possible varieties, and required, taking two at a time, to note first the difference in thought, and second the distinction in form. If the pupil have the sentences, *The day is bright,—How bright the day is!—Is the day bright?* Day, be bright, require him to note specifically three points of difference between the second and the first. And so with the points of difference in the others. He may thus be led to be an accurate observer of changing forms of sentences in requirement to the changing phases of thought; and can state readily, from actual experience, the distinctions in both thought and form between the kinds of sentences on this basis. The difference between the educational value of this course of accurate observation, comparison and contrast, and generalization and that of learning the mere definition from a book is too obvious to need statement. Yet it is the difference between life and death to the pupil. A real live experience on the one hand, and a dead tug of verbal memory on the other. No wonder the healthy boy in one case hates grammar. It is a sign of genius in him: he ought to hate it.

2. As to structure of thought, whether Simple, Complex, or Compound; giving rise to Simple, Complex, and Compound sentences.

These should be treated as the foregoing. In each sentence the student should describe, (1) the thought structure, (2) the sentence form, (3) and point out the relation of (1 and 2). In classifying a given sentence, as "*The bird which sings so sweetly is a Canary,*" the pupil should say something like this: "*This is a complex sentence; it is that sentence form which expresses a complex thought*"; assuming that the nature of a complex thought is understood. That is, all statements describing or classifying individual sentences should hold the attention to the relation of the form to the content. Again, in classifying this sentence: "*How bright the day is,*" the pupil should say that this is an exclamatory sentence; it is that sentence form which expresses a thought having feeling predominant. He should be frequently tested by requiring him to give the peculiarity of the form expressing the thought. Thus I am empha-

sizing again an old point; namely, that the student must always distinguish between form and content, and then bring them into organic unity.

II. *Subdivisions of the Organic Parts of the Sentence.*—Two facts must be noted in the study of the organic parts of any thing; namely, its Function, and the Structure by which the function is realized. While for certain purposes these two phases of the sentence must be kept separate, in the process of learning they are carried on together.

1. Subject, predicate, and copula have been given as the universal marks of the sentence; yet, each considered in itself, gives a particular class of parts as to function; which again subdivided into subordinate parts, as determined by the character of the parts of the thought. As the subjects of thought are either simple or compound, the subjects of sentences must be, as to function, either simple or compound; and as the predicates of thought are either simple, compound, or double, so the predicates of sentences, as to function, are either simple, compound, or double. Copulas of thought, on basis of relation of predicate of thought to subject of thought, are either positive or negative, affirming identity or non identity. As to the state of mind, they are decided or undecided; as to the relation of the internal to the external, they are ideal or real, giving rise to modes; as to relation in time, between internal and external, present, past or future, giving rise to sense. Copulas, as to function, vary in the requirements of these different kinds of relations which the mind establishes between subject and predicate.

These distinctions have been intruding on the attention of the class throughout the first circle of work; and they may have made, incidentally, many generalizations before approaching this part of the work formally. For instance, the compound subject could not be kept out of thought in treating the compound sentence. Such as these compared and contrasted in fixing the nature of the compound sentence: John goes to school and James goes to school,—John and James go to school,—John and James sit together,—Three and four are seven. In the two last the two objects are unified by the nature of the attribute in the predicate; while in each of the others, the predicates are thought as belonging to each object separately. Thus many, if not all, of the distinctions in this circle have been noted incidentally in the preceding phase of the work; but now the points are gathered up and treated systematically.

2. The foregoing work on the universal sentence elements consisted

he has. Other objects having been arranged upon the table and upon the blackboard in various groups, as groups consisting of 1, of 2, of 3, of 4, etc.; as 2 cubes, 3 sticks, 1 ball, 4 pencils, 2 lines, 1 cross, 3 circles, 4 dots, 2 triangles, etc., the pupil is to select twos. The children are generally so familiar with the number symbolized by the figure 2, that this phase of the work is comparatively easy, not requiring a great deal of time.

In the second place, according to the course of study, the number is to be considered as to the relations in it. By the relations in a number, are meant the whole numbers into which it can be separated, and the whole numbers which are taken to compose it. In order to be well prepared to deal with a number, the teacher should carefully think out all the relations in order that he may determine the succession in which they should be considered, and the means to be employed in presenting them. For example, the teacher is to see that the relations in the number expressed by the figure 2 may be expressed by the following: $1 + 1 = 2$; $2 + 0 = 2$; $2 - 1 = 1$; $2 - 1 - 1 = 0$; $2 - 2 = 0$; $2 \times 1 = 2$; $1 \times 2 = 2$; $2 + 2 = 1$ (two); $2 + 1 = 2$ (ones).

According to the second paragraph of the course of study, succeeding the consideration of these integral relations, the child is to be taught the idea of the fraction involved in the number. This is the fraction $\frac{1}{2}$. When the child has been taught the idea of the fraction, he is to be led to consider it under the same relations that were used with the whole numbers. Using objects, it is to be made to appear to him that $\frac{1}{2} + \frac{1}{2} = 1$; that $1 - \frac{1}{2} = \frac{1}{2}$; that $2 \times \frac{1}{2} = 1$, etc.

In dealing with each number in accordance with the course of study, the fractional idea is to be worked out. For example, in learning the number 3, the pupil is to obtain the idea of $\frac{1}{3}$; in learning 4, the idea of $\frac{1}{4}$, etc.

As the pupil advances in the consideration of the numbers, the scope of fractional relations becomes enlarged. In taking the fourths the pupil can consider $\frac{2}{4}$ of 4, $\frac{3}{4}$ of 4, $\frac{4}{4}$ of 4, as well as the $\frac{1}{4}$. In working with sixths, there may be considered $\frac{1}{6}$, $\frac{2}{6}$, $\frac{3}{6}$, $\frac{4}{6}$, $\frac{5}{6}$, and $\frac{6}{6}$ of 6. He can also see $\frac{1}{2}$ of 6, $\frac{2}{3}$ of 6, $\frac{3}{3}$ of 6, etc. He is able to master a new fractional fact as soon as he learns a new number, since each new number shows him a new number of parts into which a whole or group may be divided. These fractional relations with each number should be carefully illustrated with objects.

Although at first thought this work with fractions appears to be somewhat complex and the introduction of a new subject, it is, nevertheless, not complex and difficult, since objects are employed at every step, and it is not the introduction of a new subject; but is rather the enforcing of the idea of the number being considered. Thus it is evident that the idea of 2 is made more distinct by the study of the fraction $\frac{1}{2}$; the idea of 3 by the study of the fraction $\frac{1}{3}$, etc.; since thinking the fraction $\frac{1}{2}$ and $\frac{1}{3}$ necessitates holding in mind the idea 2 and the idea 3.

The third phase of work with a number as indicated in the course of study, is that in which the applications in the tables of measure are considered. With the number 2 there are not many such applications. In the table for paper, the folding into 2 pages gives the folio; in the table of liquid measure, 2 pints are 1 quart; in the table of money, 2 one cts. are the two cent piece. In dealing with 3, the child would learn that 3 feet are 1 yard; 3 miles are 1 league; with 4, that 4 quarts are 1 gallon; with 12, that 12 things are 1 dozen; 12 inches are 1 foot, etc.

If this phase of work is carefully continued through the mastery of the first one hundred numbers, it will be found that the pupils have learned almost all parts of all the tables; and they have learned them in such a way as to clearly comprehend them. In so far as the tables are concerned, it is then necessary merely to arrange them in their order and have them committed to memory. The object is not so much, however, a mastery of the tables as it is the making more clear to the child the number itself.

The course of study seems to hold that the best way to gain a clear idea of a number is to consider it in its various applications and relations; that by viewing it from all sides the pupil will gain both a wider and a deeper view of it.

The last point indicated in the course of study, is work on practical problems involving all the processes. This refers to such work as indicated above with the number 20; though of course in dealing with the work in the First Year the problems would not involve numbers higher than those provided in the course. These problems may be sometimes given by the teacher; but in general, the pupil should be given the advantage of both constructing and solving them. In teaching the figures the mode of work is the same as that employed in teaching printed words as standing for meaning. Placing two objects before the pupil he is led

to observe the group and to speak of it as a two. The teacher then places upon the board the figure 2, stating that it stands for the two objects. This is done in a number of cases, and then the pupil is drilled back and forth as follows:

The teacher pointing to the figure asks the pupil to show the number of objects it means. This is repeated until the association is strongly made from symbol to number, and then the child is required, when the objects are shown, to point out the figure. The arithmetical sentence is taught in the same way. For example, the child being led to see by means of objects that one and one are two, and to express this orally, is then ready to be taught its association with this expression— $1 + 1 = 2$. The association is to be made back and forth, as with the figure itself. For example, the teacher pointing to the sentence asks the child to show what it means by objects, in which case he is to show the object that the first expresses, and the object that the second expresses, and that the figure 2 stands for the same two objects.

The Number work of this year may be aided incidentally in the Reading work. When the class in the number lessons are dealing with the number 2, the pupils may be taught in the reading lessons the words: double, pair, span, team, two, twice, etc. The work upon the tables could be aided by teaching in the reading lessons the words involved in showing the application of the number in the tables, as the words pint, quart, gill, dozen, gallon, etc.

E. T.

THE SCHOOL-ROOM.

[Conducted by GEORGE F. BASS, Supervising Principal in Indianapolis Schools.]

SHORT NOTES.

"We take for the third term of the proportion the number which is of the same kind as the answer sought," said a pupil as we stepped in. We asked *why*. He could give no answer. We then asked if we might take the same number for the *first* term. He thought not. Don't allow pupils to drop into this belief.

SOME primary teachers have children look at the book long enough to study and remember a sentence, then look off the book, and at the teach-

er, and repeat the sentence to her. He repeats it to tell something, and if he makes it tell something he must have read it to himself. Is this a good plan? When he repeats the sentence is he reading or reciting what he has read and remembered? It seems a step in the right direction, but it does not seem like reading. The child must learn to look ahead as he reads. Will this teach him to do so?

DON'T allow pupils to think that the all important thing in grammar is to diagram sentences. A diagram is not a universal language. It is only a way of saying something. Pupils should so regard it.

LONG DIVISION.

CHILDREN reading in the Third Reader are required to learn this subject. It is probably the most difficult subject, for them, that they will ever have to learn, especially if the teacher tries to *explain* it and make it *very plain*. The plainer he gets the more the pupils do not understand. Pupils usually see no sense in it, because teachers try to make them see more than they are able to grasp.

The examples are not all equally difficult, but the book-makers and some school teachers do not seem to recognize this fact. In the books there is either no classification, or else the classification is based on the size of the divisor. It is often harder to divide by 13 than by 30—e. g.: $773 \div 13$ is harder than $900 \div 30$. In the book now used in Indiana the forty examples given in Long Division have divisors ranging from 16 to 4800. In another book before me the first 40 have divisors ranging from 12 to 90, twenty-four of which are 12. In another, from 7 to 6785, only one being 7.

It is the business of the teacher to present as few difficulties as possible at once. There is no law compelling him to follow any text-book slavishly. Let us suppose that our class knows short division thoroughly. The first thing to do, then, in teaching long division, is to put a short division example in the form of long division—e. g.: $78 \div 12$; $672 \div 12$; $2952 \div 12$. He can put his whole attention on the new form for what he already knows and understands. The next thing is to give a larger divisor, but not much larger, and give a dividend that will bring up no new difficulty. $1443 \div 13$ will give only one new thing to him, viz., a new divisor. He has no table of 13 as he has of 12, but 13 is so near 12

that he will have very little trouble, especially with the dividend given. He can readily see that 14 contains 13 once. He has learned the new form and knows what to do with the *one*. This example is so easy that he performs it without help, and thereby is greatly encouraged because he has taken a new divisor and succeeded "by himself." Of course, it is the skillful management of the teacher that enables him to do so, but he does not know it and he does not need to know it. He will gain strength to overcome difficulties, if he is led in this way. Difficulties may be presented in a promiscuous manner after a while and he will master them.

He is now ready for something more difficult. Try him on $286 \div 13$. In this he must see that 28 will hold 13 two times. This is the only new thing in the example. Try, next, $39 \div 13$. If he happens to know that 3×13 are 39 he will have no trouble, but if he does not, he may make a wild guess. He may say 4 times, and proceed to multiply 13 by 4 and place the 52 under the 39 and subtract, getting 87 for a remainder. If he does this, it is somewhat discouraging to the teacher, but it indicates clearly that this pupil is working by form only. He needs some special help. The teacher might call his attention to the fact that 52 means more than 39. Perhaps this may be enough. Wait on him a while. Don't bother him with much talk. Give him something to think about and let him have time and opportunity to think about it. When it is clear that he can not correct his mistake, say something else to set him thinking.

"How much are four 13's?" He says 52. "Which is the greater, 39 or 52?" "Fifty-two." "Then, are there four 13's in 39?" Just here his face shows that he sees his mistake, and without saying a word he attempts to erase it. Often the teacher checks him abruptly and insists that he answer the last question. The teacher is wrong, here. The pupil thinks he *has* answered it, and he has, in spirit, but not in the usual form. He has not only answered it, but has gone on to the next thought, and the teacher should keep still and let him work out his own salvation. The pupil may make the right guess this time, or he may see that 3×1 are 3, and that 3×3 are 9, and conclude that 3 is the correct quotient figure. This is what we hoped he would see instead of going wholly by form and wild guessing.

We give him another which brings in a new difficulty. He has now learned to take the *first* figure of the divisor and divide it into the first figure of the dividend and thereby obtain the first figure of the quotient. He

discovered this himself, and is proud of it, and has learned to depend upon it. We try him on $403 \div 13$. He writes 4 in the quotient. Don't say anything to him; *wait*. He writes 52 under 40 and hesitates. He rubs out the 52 and 4 and looks at the example. Let him look. Presently he writes 3 in the quotient rather doubtfully. He sees he is modifying his plan, but he multiplies the 13 by 3 and places the product 39 under the 40; gets one for a remainder; brings down the next figure, and he has 13 for a new dividend. He finishes quickly. Gives his work another look and then looks at his teacher rather inquiringly.

Now is the time to say something to him. Show him that when he divided 39 by 13, he multiplied 13 by 3 and had nothing to "carry" from 3×3 , but that when he divided 40 by 13 and said that it was contained 4 times, he multiplied the 3 by 4 and had *one* to "carry." He now sees that his *first* plan must be modified and he knows how to do it. Let us try him:—

17772×13 . This is a longer one but there is no new difficulty. Any teacher who will give this matter the thought that we have tried to suggest, will find that he can save much waste of time in teaching this subject, and that he can always present the subject in such a way as to produce growth in the power to think. We append a few examples as suggestive: $520 \div 13$; $5213 \div 13$; $52013 \div 13$; $6513 \div 13$; $80613 \div 13$; $99760 \div 13$; $1001 \div 13$; $1114013 \div 13$; $11206 \div 13$; $11791 \div 23$.

HISTORY.

PUPILS who can answer the following questions successfully, have not made history a study of dates and isolated facts. They are very suggestive to the teacher.—ED.

Write on two of the subjects here indicated, making your own choice, and follow the outlines here given:—

I. The Telegraph

1. On the land.

- a. Who invented it?
- b. What assistance was given, and by whom?
- c. First telegraph line established?
- d. Spread of the system.
- e. Its use in managing railways.

2. Submarine.
 - a. Who was the leader in the enterprise?
 - b. Discouragements and failures.
 - c. Partial successes.
 - d. Completion and successful operation.
 - e. Importance to the world.
- II. Joint High Commissions.
 1. How many in the history of this government?
Treat each under the following heads:
 - a. What was the occasion?
 - b. Of whom composed?
 - c. Where and when did it meet?
 - d. Difficulties encountered during deliberations.
 - e. What conclusion was reached?
- III. Choose a Campaign or Battle of the Civil War.
 1. Who commanded on each side?
 2. Aim of each commander.
 3. About what number of men engaged?
 4. Character of the country in which the campaign or battle took place, and advantages of position enjoyed by either.
 5. Superior skill in management.
 6. Result.
- IV. Write a biography of the statesman whom you most admire.

L. H. J.

GENERAL INFORMATION.

THE official returns show that the population of the United States is 62,480,540—somewhat below the popular estimate.

It is said that the Nicaragua Canal will be completed within the next four years. Have pupils turn to their geographies and find what this canal connects. Of what advantage will it be?

TO NAVIGATE THE AIR.

The Aeronautic Navigation Company was recently chartered by the Secretary of State of Illinois. The purpose of the company is to manufacture a newly invented air ship, and to manufacture aluminum under a new process of their own. The men composing this company are wealthy manufacturers of the United States and Europe, and are firm in the belief that their navigators have solved the problem of aerial navigation.

In their construction of a flying machine the inventors have depended largely though not exclusively on the vacuum theory. This vacuum is generated by a large propeller in front of the ship. The blades of this propeller are peculiarly formed, so as to cause the air to deflect toward the rear after being displaced in front, thus taking advantage both of its resistance as well as of the vacuum in driving the ship forward. On the four corners of the wings are propeller wheels to raise and lower the ship. These wings or planes are constructed in such a manner that they will improvise themselves into parachutes when the ship is descending. At the rear end of the buoyancy chamber is attached the tail. This is used to guide the ship to different heights while in motion. Just above the tail is a rudder of the same style as used on the steamboats. This rudder is employed to guide the ship to one side or the other. On the top of the buoyancy chamber is a sail extended full length and adjusted like the sails of an ordinary ship navigating the sea.

Under the buoyancy chamber is the cabin, built after the fashion of a Pullman car. Beneath the cabin is a receptacle for storage batteries. On the four corners of the car are cushioned brackets, designed to break the jar when the ship alights. In the front end of the buoyancy chamber is a compartment divided by a partition from the gas chamber. In this compartment is a rotary gas engine, capable of developing one-horsepower for each two and a half pounds of its weight. Directly on the main shaft of this engine is keyed the large propeller. Its revolutions, and consequently the speed of the ship, are under the control of the operator. The pilot who steers the ship is placed in the front end of the cabin and a chart placed in easy reach shows the course he is to follow.

The switchboard governs the electrical appliances, which, by the operation of the lever, control mechanical and working devices used on board. The cabin is heated as well as lighted by electricity, and the storage batteries are used as ballast to keep the ship in proper trim.

The material of which the aerial machine is composed is aluminum. The company is having a ship constructed, and a practical demonstration of the new idea is promised inside of two months. — *Week's Current*.

It is one of the most beautiful compensations in this life that we can not sincerely try to help another without helping ourselves.

KINDERGARTEN PRINCIPLES IN PRIMARY WORK.

This Department is edited by Miss A. E. FREDRICKSON, of La Porte, Ind.

PLASTIC CLAY.

FOLLOWING the work with the sphere as indicated in the last article, the cube and cylinder should be similarly studied, and the child thus familiarized with these fundamental forms.

In handling the clay used to produce these forms and to transform the simple solid into the various objects which they suggest to the child, he has become thoroughly acquainted with the nature of the material, takes much pleasure in working with it, and has gained some skill.

He is now prepared to take up the manufacture of tiles of various shapes, succeeding each other in the order of difficulty; square, circular, octagonal, hexagonal, triangular, and pentagonal. It is the richest and easiest work for the primary grades. It furnishes endless resources for the employment of inventive power and manual skill.

For the manufacture of the square tile, each child receives a slice of clay about one half inch in thickness, cut from a square lump of clay, by means of a copper wire or knife by the teacher, and laid upon the moulding board. It is then passed to the children, who by gentle pressure of fingers and thumbs spread it out in a flat cake about four and a half inches square and one fourth of an inch in thickness. When it has been made as smooth as possible with the fingers they take the blade of the clay-knife between the fingers and thumb and draw the edge lightly over the surface of the clay until it is perfectly smooth and polished. Then with the help of the ruler and the pointed handle of the clay knife or a pin mark out the tile. Use the blade of the knife to trim the edges, leaving a smooth four inch square. Then by use of the ruler and pointed handle of the clay-knife or a pin, the surface is analyzed in a variety of ways, presenting a logical sequence leading to more and more complicated networks which suggest designs in drawing, carving, and painting, to be carried out according to the taste and skill of the child.

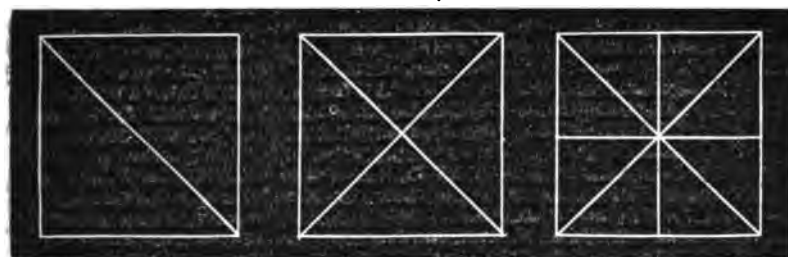
The following diagrams are offered as suggestions:



1

2

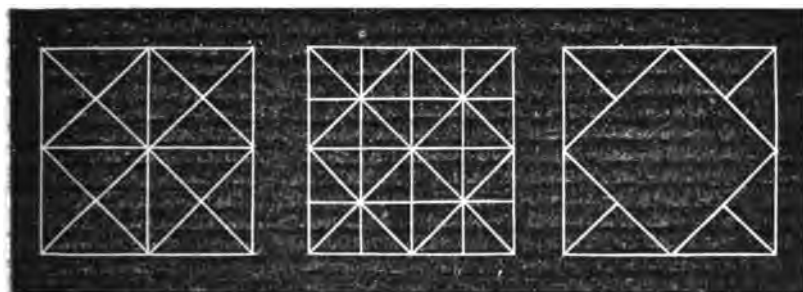
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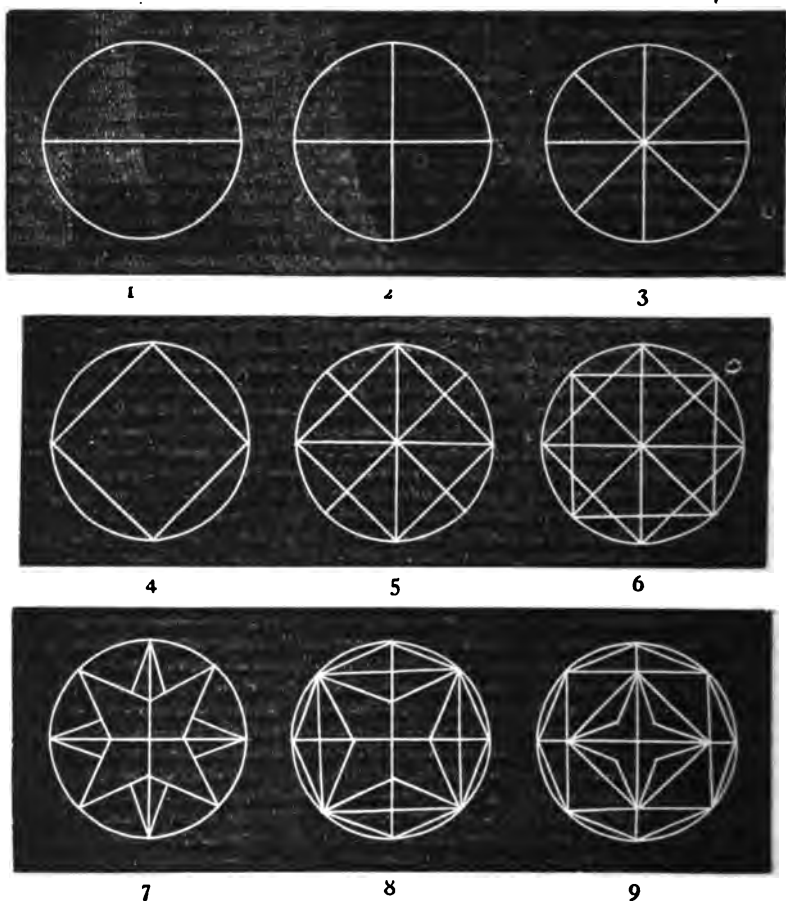
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9

In the manufacture of the circular tile follow the directions given for the square tile. When the tile is ready for trimming stick a stout pin in the centre of the tile, tie another pin to a piece of wrapping twine, pass it around the centre pin until a radius of required number of inches is obtained, and with the free pin mark the circumference of the circle on the tile. Instead of the pins and string a piece of card board one-fourth of an inch wide and three or five inches long may be used. The inches, half and quarter inches, are marked on it as on a ruler, one end is fastened to the centre of the tile by a pin, another pin is inserted in the point on the card board marking the required radius and the circumfer-

ence of the tile drawn as in the first instance. The excess of clay is then cut away and the tile is ready for the work of analysis as suggested above and in the following networks:



Other and more difficult networks for both square and circular tiles will readily suggest themselves to those who give thoughtful consideration to the form ideas to be brought out. The surface of circular tile offers excellent opportunities for practice with dividers in making concentric circles and circular arcs. Where the children are not provided with dividers the card board and pins spoken of above will be found valuable.

Each tile which the child makes presents to him a means of expressing his individuality. This he may do in the ornamentation of the form, by drawing, carving, and painting. It gives him a purpose beyond the fashioning of the form and gaining of geometrical knowledge. All of these exercises have a value aside from that of ornamentation. In drawing upon the soft surfaces the hand is trained to delicacy of touch, as gentle pressure is imperative; the carving requires skill and accuracy; and the painting of the different fields trains the hand and eye and makes the forms more impressive. All appeal to the emotions and cultivate a love for the beautiful and indirectly aid the intellect to a clearer knowledge of the forms, for the child in order to carry out his ideas of design must give to the form a degree of thoughtful study which could not otherwise be obtained.

EDITORIAL.

WHEN you send "back" pay for the Journal please name the agent with whom you subscribed.

TAKE NOTICE.—The Journal's new location is 66½ North Pennsylvania St., opposite Grand Opera House.

IF you do not receive your Journal by the 15th of the month write at once and ask to have it re-mailed. Occasionally a teacher will wait two or three months before writing. This delay is generally inexcusable, and results in loss to the teacher and usually unnecessary trouble to the publisher.

REMEMBER.—Please remember that all subscriptions are due on or before January 1. Do not postpone the payment till the last day—and then forget it. Do not put the agent or the editor to the trouble and expense of sending you a "reminder." All agents are expected to report in full, if possible, not later than January 1, and they can not do this if teachers do not pay as agreed upon.

OUR REMOVAL.—This Journal has had its home in the Journal Building for nearly twenty years, but owing to the fact that this building has recently been sold and the purchaser desires the Journal sanctum for his own uses, the Journal is compelled to move out. It regrets exceedingly to make this change as it was much attached to its old home where it has welcomed so many of its friends.

The new quarters are only around the corner in the same square, Room 6 in Vajen's Block, 66½ North Pennsylvania street—directly opposite the Grand Opera House. It will receive its friends in its new home after Nov. 1, 1890.

THE COLUMBUS NORMAL is prospering, with bright prospects for a large attendance in the spring.

THE PROGRAM of the State Association will be found on another page. It will be noticed that the main association will meet forenoons and evenings, and the afternoons will be given up to the various sections. This is the plan which the National Association is managed and it works well there, and there is no reason why it should not here.

The ladies were never before so largely represented on a program, and this augurs well for the interest of the meeting—if they will only make themselves heard. More time has been provided for discussion than usual, and this certainly add interest.

D. W. Thomas, Ch. Ex. Com., has spent much time in arranging this fair and is now sending programs and using all his endeavors to secure a large attendance. Let us all join him in this endeavor. Let us first make up our mind to come ourselves, and next try to influence our neighbor to come with us.

Outside the merits of this program and the excellent annual address, it gives teachers to attend these annual gatherings. It extends acquaintance, and all this arouses professional enthusiasm and professional pride, and stimulates more devotion and better work.

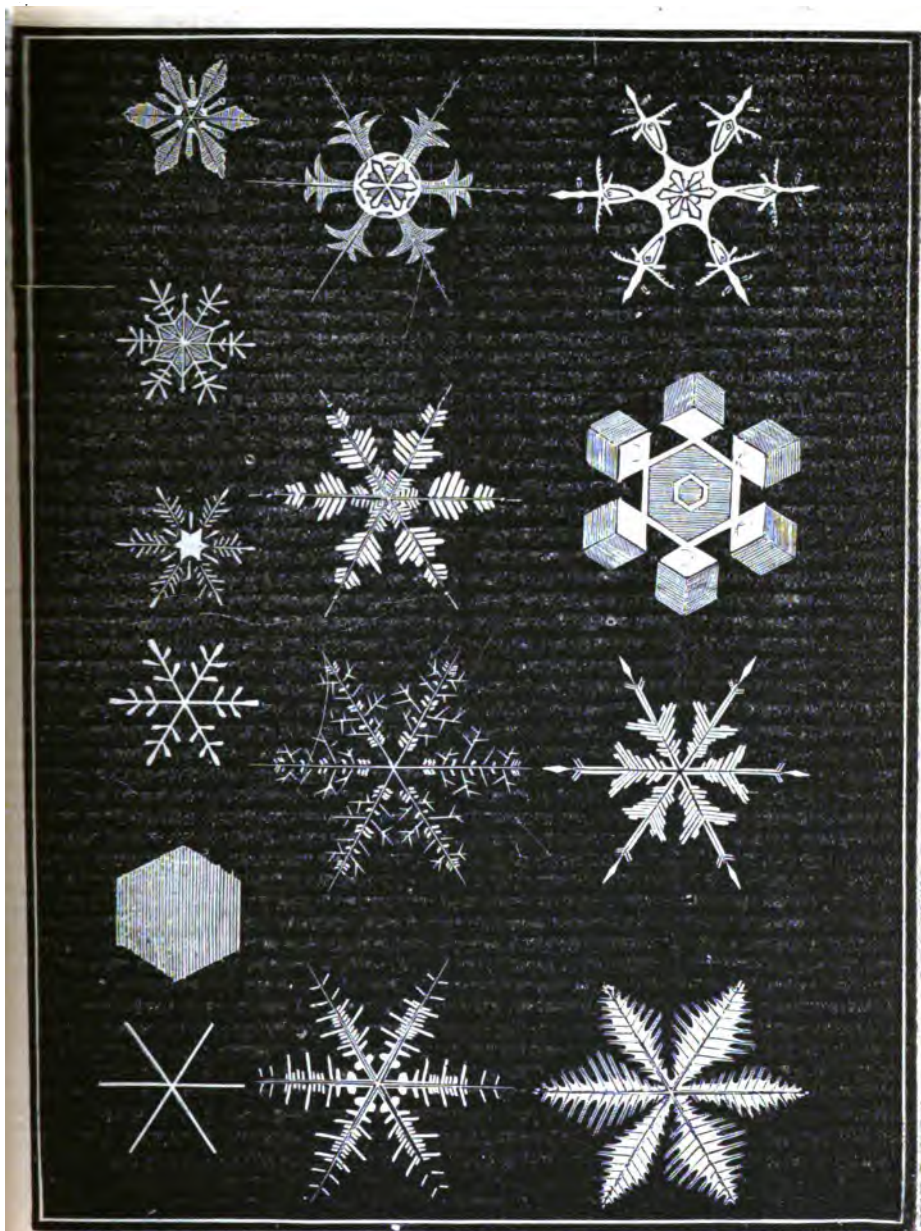
LIGHTING A SCHOOL-ROOM.—A school-room is sufficiently lighted when window space is *one-sixth* the floor space. The light should come from the top or left and back. If it comes from the right the shadow of the hand is always in the way, and light in the front is injurious to the eyes. It is an easy matter to construct school buildings so that pupils in every room shall sit facing a wall and have the light coming from proper directions.

The curtains to school-room windows should always be attached at the bottom so as to be raised and not at the top so as to be lowered. If the light comes from the top part of a window it will strike the books at a much better angle than it will if admitted below. This is an argument in favor of having windows extend as near the ceiling as possible although they do not come near the ceiling. Teachers should study this important subject.

THE BEAUTIFUL SNOW.

The cut on the opposite page shows a few of the many forms into which snow flakes crystallize. As we look at the little flakes as they descend, or if we examine them in mass after they have fallen, they seem to be utterly without regular form; but if a flake can be allowed to fall upon a smooth surface and then examined under a microscope it will be found to be crystallized in a beautiful form. Usually all the flakes in a given storm are of one, or at least of a few forms, but the number of crystal forms these little downy messengers take is very large. These crystalline forms are easily broken down, and in order to be seen to the best advantage they must be taken fresh, and not handled.

Many teachers have microscopes, which they are using in connection with their botany study, which will serve to show all the mysteries of the snow-flake. But without the microscope, with the aid of these illustrations, an interesting and instructive lesson can be prepared for an entire school.



SNOW FLAKES.

TOWNSHIP LIBRARIES.

Teachers generally recognize the great importance of libraries as a means of general information. If each township could have a good library the average intelligence of the state would be advanced many per cent. in a few years. A reading community will of necessity be an enlightened community.

The next legislature will meet early in January, and an effort should be made to secure the passage of a law providing for township and town libraries. Perhaps a law *permitting* each township to vote a tax upon itself for library purposes would be best to start with. With such a law a few active, earnest persons can secure a library in almost any corporation, town or township. If all do not embrace the opportunity at once, a part will set the example and the good results will be so apparent that the "tardies" will sooner or later come into line.

But it is not the time now to discuss the details of such a law; let us make a united effort to get the law—the best possible, and then if it is defective it can be amended later.

Teachers have sufficient influence to secure this law if they will but *act*, and act together. Let every one see his representative and senator, or write letters and *urge* this matter. If each teacher would do this, and then get some citizen not a teacher to do the same, the work will be done. Will not teachers take hold of this most needed work and thus push it to completion?

TEACHING PATRIOTISM.

Much has been said and is being said about teaching patriotism in the public schools, and to aid in creating this patriotic sentiment it has become quite the fashion to place flags on school buildings. The Journal heartily endorses the idea of teaching patriotism, and has no doubt that the flag of the country can be used as a means to this end; but it has grave doubts as to the methods often if not usually employed.

Patriotism is love of country. How can a boy be taught to love his country? How can a boy be taught to love his home? By *telling* him to love it? By *talking* to him about it? By *eulogizing* it? By *saying* it is better than other boys' homes? Is this the way to make a boy love his home? Hardly. If a boy is to love his home it must be because his home is lovable—it must possess attractions to him. It may be a very humble cottage and yet dearly loved, or it may be a mansion and hated. If parents would have their children love their homes they must make the conditions congenial, attractive—commanding, even coaxing will not do it. Love is a sentiment and can not be commanded. The affections are attracted or repelled by the object considered and can not be directed by a third party. If the home itself does not draw the boy he is an alien and must remain so.

What is true of the home is true of the country—the larger home. The way to make a boy love his country is not to *tell* him to love it, not to *proclaim* it the most glorious in the world; not to have him *read in history* that others have fought for it; not to *say* to him this is "the land of the free and the home of

the brave"; not to unfurl a flag over his school building and say, behold the emblem of liberty. None of these and not all combined will make a boy truly patriotic. If he is to really love his country he must be made to *feel* his relation to it. He must be led to understand its institutions,—the family, the church, the state, the general government and his connection with each. He must be made to understand how his own happiness and the welfare of all depend upon the purity of these institutions, and how it is that not one of them can suffer without harm coming to every individual. He must be led to see that any person who by his words or by his life makes war upon any one of these institutions of society is in so far an enemy to his country. He must be made to understand and comprehend the institutions of society and thus to appreciate them.

It will thus be seen that one may teach history and not teach patriotism. It is a pleasant thing and it may be a desirable thing to have a flag upon each school house, but whether or not it adds to the patriotism of the pupils depends upon the use made of it.

THE BENNETT LAW.

The Bennett law—which is the name of the compulsory school law of Wisconsin, has achieved a national reputation. The law was passed at the last session of the legislature almost unanimously, and politics was not thought of in connection with it. It provides among other things that children must be taught in the English language for a certain number of months each year. This provision, of necessity, involved state inspection of denominational schools. On these two points arose the trouble. Church schools did not wish to be subject to this inspection, and German Lutherans and German Catholics and other classes speaking foreign languages objected to the clause that required that their schools should be taught in English. The consequence was a combined effort on the part of all these elements to have the law repealed. One of the political parties seeing a chance to make some capital out of the situation pledged itself in its platform to abolish these objectionable features of the law, and it thus became a political question.

A similar law and a similar condition of things existed in Illinois. The result was that the opponents of the law were overwhelmingly victorious. In Illinois Dr. Edwards, the State Supt., who defended the law, was two years ago elected by over 15,000 majority, and in the late election he was defeated by over 35,000. While this large change was not all due to this law it had much to do with it, and there is no mistaking the fact that, at present at least, a majority of the people are not in favor of *such* a compulsory school law.

There was no special fight made against the compulsory law as such,—only against the features named. In fact, some of the church resolutions condemning the English teaching and state inspection parts, heartily commended the other features of the law, including the compulsory clause.

The arguments in favor of the Bennett law are: 1. This is the *United States* and the language of the country is English. 2. Every child has a right to an education, and not only this, but an education in English, that he may be pre-

pared for citizenship. 3. It is the duty of the state to see to it that every child is given this necessary qualification for citizenship, and to this end and to this extent it has a right to inspect the instruction in church schools.

The arguments against it are: 1. It encroaches upon the individual rights of parents, who claim the right to have their children taught in their mother tongue. 2. It unnecessarily interferes with the rights of the church in directing the education of its children.

The church insists that it is independent of the state, and is capable of directing its own schools, which are not paid for by the state and are strictly private.

The Journal will have something further to say on this question when the time comes for Indiana to deal with the compulsory education question.

THE ELEVENTH CENSUS of the U. S. is not yet completed in its footings and classification, but we have many of the conclusions reached. The population for 1880 was 50,155,783, and for 1890 it is 62,480,540. The only states that have decreased in population are Vermont, 81; and Nevada, 17,939. Nevada dropped from 62,266 to 44,327.

Indiana increased from 1,978,301 to 2,189,030. Its per cent. of increase was less than that of either Illinois, Michigan, Ohio, or Kentucky,—surrounding states. In Kansas the census is taken each year, and the figures for the past ten years show that while there is an increase of 1890 over 1880, there is a falling off of over 90,000 since 1885, when the maximum was reached.

In 1880 Indiana stood 6th in population, the states standing ahead of it being New York, Pennsylvania, Illinois, Ohio, and Missouri. In 1890 Indiana stands 8th, Massachusetts and Texas having stepped above. Of the 49 states and territories of course New York stands first and Nevada stands last.

WHAT PART OF ARITHMETIC IS MOST USED IN PRACTICAL LIFE?—Mr. Geo. W. Sickles contributes an article to the *Michigan Moderator* in which he gives the results of some careful investigation among business people as to what part of Arithmetic they used most. People were interviewed engaged in the following branches: Dry goods, lumber, post office, bazar store, druggist, real estate and loan, bank, hardware, grocery, farmer, railroad, teacher; and asked to make careful estimates. The result was an average of 77% in addition, subtraction, multiplication, and division; 8% in fractions, 3% in compound numbers, 11% in percentage, including interest, insurance, commission, taxes, etc.; and $\frac{1}{2}$ of 1% in square and cube root.

This shows that more than three-fourths of the work done in Arithmetic in actual life is confined to the four fundamental rules, and a common sense conclusion is that accuracy and rapidity in these parts should be a chief end of arithmetical instruction.

"THE HOOSIERS" is the name of a literary society in Rockville. The Program for 90-91 is exquisite in taste, and the work planned is interesting. Mrs. Rufus Dooley, *nee* Hinkle, late leading teacher, is president.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN OCTOBER.

WRITING AND SPELLING.—The penmanship shown in the manuscripts of the entire examination will be graded on a scale of 100, with reference to *legibility* (50), *regularity of form* (30), and *neatness* (20). The handwriting of each applicant will be considered in itself, rather than with reference to the standard models.

The orthography of the entire examination will be graded on a scale of 100, and 1 will be deducted for each word incorrectly written.

Or, the county superintendent may conduct the examination in these subjects in any manner he may desire.

GEOGRAPHY.—1. In what part of the United States are lakes most abundant? In what part of Europe? What is the cause of this peculiarity of distribution?

2. What is the chief industry of the lower part of the Columbia River?

3. Where is the Yo Semite Valley? For what is it noted?

4. What is the capital of Belgium? Of Sweden? Of Ohio? Of South Carolina? Of Brazil?

5. What is the chief industry of Newfoundland?

6. Name some of the principal canals of North America and indicate their terminal points.

7. What is the government of France? Of Switzerland? Of Holland?

PHYSIOLOGY.—1. Write upon the topic: "The Bones," under the following heads:

1. Their composition.
2. Their structure.
3. Their shapes.
4. Their uses.
5. Their hygiene.

2. Write upon the topic: "The blood," under the following heads:

1. Its composition.
2. Its uses.
3. Its nourishment.
4. Its purification.
5. Its hygiene.

ENGLISH GRAMMAR.—1. Explain the use of the italicized word in each of the following sentences:

- a. He is speaking *distinctly*.
- b. *Clearly*, he did not intend it so.
- c. *Most assuredly* I will.
- d. I met him *only*.

2. When the clauses of a compound sentence are said to be coördinate, what is the meaning of coördinate?

3. What relations may exist between the clauses of a compound sentence? Give an example of each.

4. Make any needed correction in the following sentences, with reason for the same:
 - a. I had only gone a mile.
 - b. He did not understand what he had done clearly.
 - c. The work must be begun over again.
5. What are the uses of the compound personal pronoun? Give an example of each.
6. What is an expletive? Give an example and explain.
7. What distinctions are the modes of verbs meant to express?
8. Give the past tense and the past participle of each of the following:
 - a. beseech.
 - b. chide.
 - c. choose.
 - d. cling.
 - e. lie (to recline).
 - f. lay.
9. For what purpose are interjections used in sentences?
10. At what stage in public school work may English Grammar be profitably studied? Give reason for your answer.

ARITHMETIC.—1. What letters are employed in Roman notation, and by what rules are their values determined?

2. Illustrate the rule for the division of decimals, when the divisor is a decimal or a mixed number.
3. Write the tables for the three kinds of measures of extension.
4. What is the least common multiple of 2 yards 1 foot, and 2 feet 8 inches?
5. How much will $19\frac{1}{2}$ bushels of apples cost, at the rate of $\$4\frac{7}{8}$ for $11\frac{1}{4}$ bushels?
6. William is 16 years old, and $37\frac{1}{2}\%$ of William's age is 40% of Henry's age. How old is Henry?
7. How much interest will I have to pay on a loan of \$7,650 for 20 days, at 7 per cent.?
8. A merchant buys a bill of goods, invoiced at \$975, on 60 days. If allowed 5% off for cash, how much will he gain by borrowing the money at 7% and cashing the bill?
9. What is the rule for simple proportion? Illustrate.
10. What is the length of one side of a cubical block that contains 2 cubic feet, 1,457 cubic inches?
(Answer any eight.)

U. S. HISTORY.—1. What two principles claimed by the South at the beginning of the Civil War were necessarily abandoned by the failure of the Confederacy?

2. Write a brief biography of the statesman whom you most admire.
3. Tell what was the attitude of each of the four prominent European governments toward the colonists in their struggle for independence.
4. What was the special importance of the "Mecklenburg Resolutions?"
5. What was the real objection of the colonists to being taxed by England?
6. What are the chief differences between the "Wilmot Proviso" and the "Missouri Compromise?"
7. What was the "Ostend Manifesto?" The "Monroe Doctrine?"
8. Describe a campaign or a battle of the Civil War.

9. Give an account of the explorations of Champlain, DeSoto, or John Smith.

10. What were the chief financial measures made necessary by the expenses of the Civil War? When was specie payment resumed?

SCIENCE OF EDUCATION.—1. State what is meant by a moral judgment.

2. What do you consider to be the relation of correct moral judgment to up-right conduct?

3. How can the school educate the child to form correct moral judgment?

4. Show that to form the habits of promptness, industry, and regularity is to form moral habits.

5. What virtues may be incidentally taught in connection with United States History?

6. On what ground may patriotism be considered a great virtue?

7. In moral instruction in the school, what use would you make of the Scriptures?

READING.— “All are architects of Fate,
Working in these walls of Time;
Some with massive deeds and great,
Some with ornaments of rhyme.”

—From Longfellow's "Builders."

1. Ask 10 suitable questions, calculated to bring out the meaning of the above extract. 10 points, five each.

2. Write a brief biography of Longfellow, and name his most important works. Mark from 1 to 50.

ANSWERS TO PRECEDING QUESTIONS.

READING.—1. Define architects.

2. What is Fate?

3. Why is Fate capitalized?

4. What is meant by "walls of Time?"

5. Why is Time capitalized?

6. To what is time likened?

7. What do "massive deeds" represent in this picture?

8. Why not say "great and massive deeds?"

9. To what is rhyme compared?

10. Give the meaning of the stanza in your own words.

ARITHMETIC.—4. 2 yards 1 foot = 84 inches.

2 feet 8 inches = 32 inches.

The L C M of 84 and 32 is 672.

672 inches = 18 yards 2 feet, Ans.

5. $11\frac{3}{4} : 19\frac{1}{2} :: \$4.70 : \$7.80$, Ans.

6. $37\frac{1}{2}\%$ of 16 = 6. $6 \div .40 = 15$ years, Ans.

7. The interest of \$1.00 for 20 days at 7% is \$.003 $\frac{1}{3}$.

$\$7650 \times .003\frac{1}{3} = \29.75 , Ans.

8. 5% of $975 = \$48.75$. $\$975 - \$48.75 = \$926.25$, cash value of the goods.
 If he borrow this sum in bank for 63 days at 7% , he must give his note
 for $\$976.25 + .98775 = \937.74 . $\$975 - \$937.74 = \$37.26$, his gain at the
 end of 63 days.
 If ordinary interest, and 60 days are used, he will gain $\$37.94\frac{3}{8}$.
10. 2 cubic feet 1457 cubic inches = 4913 cubic inches.
 The cube root of 4913 is 17. 17 inches = 1 foot 5 inches, Ans.

GEOGRAPHY.—1. (a) In the northeastern part.

(b) In Europe there are two lake regions, one in the Alps and one around the Baltic Sea.

(c) The division of the water-sheds, the slope of the land, the depressions in the surface.

2. Lumbering, farming, commerce, and fishing.

GRAMMAR.—1. (a) Distinctly is an adverb and modifies speaking.

(b) Clearly is an adverb and modifies the whole clause.

(c) Most assuredly is an adverb modifying the verb.

(d) Only is an adjective modifying him.

2. When one does not depend upon the other; when each is equally important with the other. Coördinate means having the same rank or importance.

3. The clause may be concessive; as, "Though truth is fearless, yet she is meek." They may be comparative; as, "Talent is power, but tact is every-thing." They may be antithetical; as, "I go, but I return," etc.

4. (a) I had gone only a mile. Only modifies mile and should be placed near to it.

(b) He did not clearly understand, etc. Clearly modifies understand, and not done.

(c) The work must be begun again. Omit over: it is unnecessary.

5. The compound personal pronouns are used when an action reverts upon the agent, and also when some persons are to be distinguished from others. They are used in the nominative and objective cases only; as, "The soldiers helped themselves." "I, myself, heard him."

6. An expletive is a word not necessary to the sense, but used to fill a vacancy or for ornament; as, "Now, Barabbas was a robber." "There is no report of any disaster." Now and there are expletive.

7. Moods are different forms of the verb, each of which expresses the action, being or state in some particular manner.

10. Grammar should be begun in the sixth or seventh year. Before that grade the average pupil is not prepared to grasp the subject. As a preparation, language lessons should be given in the previous years.

SCIENCE OF EDUCATION.—1. A judgment is a mental product consisting of the relation of two or more ideas. A moral judgment involves an ethical idea; this idea must precede and be the base of it. A moral judgment is therefore a mental product, consisting of the relation of two or more ideas as to right or wrong.

2. Correct moral judgment must lie at the base of upright conduct,—must be its cause. Conduct not springing from correct moral judgment could scarcely be called upright conduct.

3. By presenting right motives; by teaching to distinguish between right and wrong; by cultivating the love of truth and right; by awakening the conscience.

4. Habits that are the opposite of promptness, industry and regularity, lead to immorality and vice; just so these habits tend to right conduct and morality.

5. Truthfulness, perseverance, patriotism, love of liberty.

6. Patriotism or the love of one's country is one of the noblest feelings that can inspire the heart. It leads to the noblest of deeds. It tends directly to the stability of government and society. It leads to the sacrifice of self for the good of others. It secures law and order and good government, without which civilization would be destroyed and barbarism restored.

7. The most beautiful and instructive lessons in morality are to be found in the Bible, and may be read to the pupils, as, the story of the prodigal son; the story of the good Samaritan. Appropriate lessons from the Bible read each morning may be made very interesting and profitable.

HISTORY.—1. That a State had a right to withdraw from the Union. That slavery could, as a matter of right, be carried into the territories.

3. France was the only European country that openly aided the colonies. The other principal countries either favored the British or remained neutral.

4. The Mecklenburg Resolutions showed the feeling of the people and stimulated the other colonies to unite for independence.

5. They objected to taxation without having a voice in Parliament.

6. The Wilmot Proviso prohibited the extension of slavery into the territories; the Missouri Compromise permitted the extension of slavery.

7. The "Ostend Manifesto" was a declaration from the ambassadors of the governments concerned in favor of the purchase of Cuba by the United States. The "Monroe Doctrine" was a declaration "That the American continents were not to be considered as subjects for colonization by any European power."

10. The raising of revenues from customs, income tax, excises, etc. The issuance of legal tender notes to be used as money. The issuance of U. States Bonds and the establishment of National Banks.

QUERY AND ANSWER DEPARTMENT.

[This Department is conducted by J. C. GREGG, Superintendent of the Brazil Schools. Direct all matter for this department to him.]

QUERIES.

275. A wins 9 games of chess out of 15 when playing with B, and 16 out of 25 when playing with C; at that rate how many games out of 118 should C win when playing with B?

G. S. DUNNERLINE.

276. What day is known as "Black Friday?" B. M. SCOTT.
 277. What was La Fayette's real name? *Id.*
 278. Who were on the bond that released Jeff. Davis? *Id.*
 279. What general is said never to have lost a battle? *Id.*
 280.
$$\frac{.5 \times .006}{\frac{1}{15} + \frac{1}{3} \times (\frac{1}{4})^2} + \frac{\frac{4}{5} - \frac{1}{5} \times (\frac{2}{3})^2}{1.6 \times .625} = ?$$

 (See No. 118, page 336, Ind. Comp. Arith.) A. B. F.
 281. What is the cause of the premium or discount on a bank draft in domestic exchange? BLOOMINGDALE.
 282. Solve No. 46, page 284, Ind. Comp. Arith. A TEACHER.
 283. Name in their order the seven largest towns in Indiana. J. H. SUMMERS.
 284. Why is 360 taken as the number of degrees in a circle? ANON.
 285. What does Yosemite mean? *Id.*
 286. How and when did Russia get possession of Alaska? W. A. COLE.
 NOTE.—A Reader who asks for solution of No. 51, page 284, Ind. Comp. Arith., will see No. 329 page 217 of the Journal for April, 1890.

ANSWERS.

269. } No answers received.
 270. }
 271. The Casiquiare River in South America. B. M. SCOTT.
 272. No answer received.
 273. The hound describes the curve of pursuit. Let x = the distance the fox runs, and $r = \frac{v}{V}$. The formula for the distance run by the fox when overtaken is $x = \frac{v^2}{1-r^2}$. This divided by the rate gives the time. For a complete discussion of the curve of pursuit see No. 11, Vol. iv. School Visitor, published by John S. Royer, Gettysburg, Ohio. Ed.
 274. They will be nearest to each other in $1\frac{4}{5}$ hr., and will be 3.26 miles apart. For a full solution address the editor of this department. Ed.

CREDITS.

E. J. Fermier.....	265-6-7	E. M. Raleigh.....	271
J. H. Summers	271	Jas. F. Hood	262-4-5-6-7
D. M. Deeg.....	271	B. M. Scott	271-4

The discussion of the curve of pursuit referred to in No. 273 is by Prof. Heary Gunder, one of Indiana's best mathematicians. It is well worth careful study. We hope that answers to Nos. 269, 270, and 272 will be sent in.

MISCELLANY.

ANTIOCH COLLEGE, (Horace Mann's old college), at Yellow Springs, Ohio, is now doing good work under the presidency of Rev. D. A. Long.

PULASKI CO. held its annual Association Nov. 28-29, and had Pres. Jordan and Pres. Parsons do all the work day and evening. This was a new departure and a rich feast. The program was the most artistic and expensive we have seen.

RUSH CO. will hold a joint-institute the 3d Saturday in January.

THE REPORT of the Proceedings of the National Association is just at hand. It contains all the papers and addresses, and makes a volume of over 900 pages. More anon.

BLUFFTON has just completed a new high-school building which is up to the demands of the times. P. A. Allen still holds the reins, and all the Bluffton schools are prospering.

CLARK CO.—The teachers of Monroe township passed a resolution unanimously, requesting their representatives to vote for a law, which will distribute school revenues on the "average daily attendance."

THE CLAY CO. MANUAL, arranged and published by Co. Supt. Chilson by order of the Co. Board, shows the schools to good advantage and indicates that some good work is being done, both by the Supt. and the teachers.

MOORE'S HILL COLLEGE, under the direction of its new president, Dr. J. H. Martin, is in a most prosperous condition. The attendance is large and the interest is excellent, and the normal department is making a good start.

Ind. School Journal: I have not received my October No. of the *Journal*. My address is Crawfordsville, Indiana.

If the writer of the above will kindly give his name, the October *Journal* will be sent at once.—[ED.]

THE CINCINNATI, WABASH & MICHIGAN RY. feels that great injustice has been done it by an exaggerated and false telegram sent to the *Indianapolis Journal* concerning collision of cars at Warsaw, recently. The officials of the road pronounce the telegram absolutely false in its most essential parts.

LAKE CO. sustains a Principals' Association, which is active and doing good work for the schools. North township is now experimenting on the plan of a township system; 20 teachers doing graded school work in town and 6 in country schools. It is working admirably and already shows marked improvement in country school work. W. C. Belman is Supt.

Dear Sir: Along with others I want to offer my mite upon the "School Revenue" question. The question has made a contention, it seems, unfortunately so, too, between city and country schools. If the *daily attendance* is made the basis of apportionment, it seems to me the country schools would be the losers. The large cities might lose, but the smaller incorporated towns would gain enough to make the country schools the losers. Better leave the plan of apportionment as it is than to cripple the country schools. Any plan that will cause a rivalry over dollars and cents between city and country schools is not good. Let us hear an opinion on this plan. Let the apportionment be by counties, be as it is, and let the apportionment to corporations in the country be to trustees on the basis of number of teachers employed. Will some one give reasonable objections to the plan? Truly,
J. E. McCUTCHEN, Servia, Ind.

INDIANA AT CORNELL.

Ed. Journal: The Indiana colony at Cornell University is partly made up of the following persons: Prof. and Mrs. Earl Barnes, Indiana University; Mr. and Mrs. Sam. Harding, Indianapolis; Mr. and Mrs. Salem Patterson,

Crawfordsville; Mr. and Mrs. W. H. Mace, Greencastle; and Messrs. Goodell and Stevenson, Franklin College.

Prof. Barnes is widening and deepening the lines of his University work and is taking in addition an advanced course in Psychology. Mrs. Barnes is giving the last strokes to a History of the United States constructed on the plan of her (Sheldon's) General History. Teachers who know the latter book will look forward with pleasure to the revolution in text-books on U. S. History that this promises to make.

Mr. Pattison, formerly instructor in Wabash College, is working in the department of history, where his work has been highly commended. The rest of these persons are also working in the department of history, and all but Messrs. Goodell and Stevenson live in Cascadilla Place. This affords much pleasant social contact.

It must not be inferred, however, that the other departments of the University and the rest of the houses in the city are as full of Indiana students as those named, but it is fair to say that my observation has been confined to graduate students in the department of history, and there is no telling what a careful canvass would bring forth.

HOOSIER.

EUROPEAN EDUCATIONAL NEWS.

KINGDOM OF SAXONY. During 1879-80 the ratio of recruits who were illiterate was 0.28% in Saxony, but in 1887 the ratio has decreased to 0.02%. The public schools had in 1887—572,776 children; 280 176 boys and 292,600 girls; classified according to religion there were 559,803 children of Evangelical faith =97.5%, 10,892 Catholics=2%, and 2081 Israelites=0.5%.

The number of teachers (including substitutes) was 8146; 7407 Protestants, 729 Catholics, and a small number of Jewish teachers (the latter taught only religion). Saxony has 84 private schools. The normal number of pupils to the teacher was 70 31, in Dresden alone 50. Among 100 inhabitants there are 18 in elementary schools; if all other schools are counted in we find the ratio of population in school to be 22%. 68,249 pupils attend the continuation schools (post graduate courses in elementary schools), among these were 977 females.

The number of female teachers is 264, or 3.2% of the whole number of teachers. In private schools the number of female teachers is larger, namely, 307.

BERLIN. This city had in 1889, 180 public elementary schools, with 3020 classes and 169,052 pupils. This is an increase of 5 schools, 102 classes, and 5789 children over the year 1888. The teaching force consists of 180 rectors (or principals), 1906 male teachers, 941 female teachers, and 619 female assistants (for girls' industrial education). There being 102 new class-rooms opened, one would think that a great many more teachers had to be procured, but strange to say, only 108 new teachers were employed during the year, hence 6 is the number of changes that took place in a body of teachers numbering 3685. What a remarkable showing. Here is an instructive column of figures:

1869:	588 teachers.	33,000 pupils.
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1874:	1068	
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1889:	3685	
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169,052 pupils, after 20 years.

An increase of 627% in 20 years.	An increase of 513% in 20 years.
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APPORTIONMENT OF SCHOOL REVENUES AND COMPULSORY EDUCATION.

The annual meeting of the City and Town Superintendents was held in Indianapolis Nov. 20-21. Their program designated several topics for discussion, but most of the time was given to apportionment of school revenues and compulsory education.

In regard to the apportionment the superintendents were practically unanimous in the belief that the enumeration is as honestly taken in the cities as in the country, but that there are more difficulties to overcome in the city than in the country, and that a few instances of abuse of a law is not sufficient grounds for changing a principle. Many arguments were given to prove that the enumeration of children in cities is always larger in proportion to the entire population than in the country. To change the basis of enumeration on a charge of fraud is an unjust and unwarrantable imputation against city trustees. Reasons were given why the per cent. of enrollment in the cities could never reach that in the country:

It was claimed that in many townships there are too many school houses and that schools are sustained when the attendance does not average 10 pupils, and that such extravagance is never allowed in the cities, where the number of children to the teacher is very much larger than in the country. It was claimed that as a rule the country boy gets as much education as does the city boy—that in the city where a boy is of little or no help to his parents he goes to school 10 months in the year, but at an early age is tempted into business and leaves school entirely, while the country boy who is of great service on the farm can attend school fewer months each year, but continues to attend school for more years. It was argued that parochial schools greatly reduce the enrollment in the cities, and to change the basis of enumeration so that the children attending should not draw their proportion of school money, would work a hardship and an injustice to their parents. If a parent chooses to send his children to a private school and turn over the public money they are entitled to for the benefit of his neighbors, that is his right. To change the basis and send this money over the state would render it necessary to levy more local tax, and he would have to help pay it. In this way a man is really fined for sending his children to a private school at his own expense. It was universally admitted that it was right for the wealthier communities to assist in the education of the poorer ones, and it was shown that no state in the Union goes farther in this direction than does Indiana, but it was argued that this principle should not be pushed too far. The feeling was very general, if not universal, that the present basis of distributing the school revenues is the best one if honestly enforced, and that no other suggested is free from objectionable features. No law can be made on this subject, that may not be evaded or abused. The superintendents insisted that they wished to be just and even generous toward the country, but at the same time wanted to be just to the cities.

Compulsory education was considered at some length. Dr. Hailman read a "suggested" law as prepared by the Northern Supts. Club, and this was gen-

erally approved. It provided for compulsory attendance, but omitted the clause compelling the teaching to be done in English, which involves to some extent the inspection of church schools, and which has met with so much opposition in Illinois and Wisconsin. Some of the Supts. favored the "English clause," but the majority preferred the modified form on the ground that in this English speaking country the English would take care of itself, if the general elementary education be given.

The suggested law also provides for an officer whose duty it shall be to see to it that the law is enforced and that all children of legal age attend school the designated time. It also provides that no one shall employ a child until it can bring a certificate that it has attended school the required time. There was some difference of opinion as to whether this is the most auspicious time to urge the matter upon the legislature, but no one expressed himself as opposed to the principle of demanding that every child shall be given an elementary education.

INDIANA STATE TEACHERS' ASSOCIATION.

Thirty Seventh Annual Session—December 29, 30, and 31, 1898, at Plymouth Church, Indianapolis, Indiana.

PROGRAMS.

GENERAL ASSOCIATION.

MONDAY, Dec. 29, 8 P. M.—1. Solo, "My Queen," Blumenthal; Mrs. Florence N. Fisk, Vevay. 2. Address of Retiring President, J. A. Zeller. 3. Inaugural Address, W. W. Parsons. 4. Appointment of Committee on Nomination of Officers. 5. Miscellaneous Business.

TUESDAY, Dec. 30, 9 A. M.—1. Duet, (selected), Miss Nellie A. Smith and Miss Aurie V. Hedrick, Union City. 2. School Savings Banks, Mrs. Mary V. Mustard, Bloomington. 3. General Discussion. 4. Nature and End of Education, T. J. Sanders, Warsaw. Leaders in Discussion: F. M. Stalker, Bedford, Alpheus McTaggart, State Normal. 5. General Discussion. Recess. 7. Civics in the Public Schools, R. I. Hamilton, Huntington. Leaders in the Discussion: B. J. Bogue, Mishawaka, C. W. McClure, Brookville. 8. General Discussion. 9. Consideration of Constitution of I. S. T. Association.

Evening, 8 o'clock.—1. Duet, "The Crimson Glow of Sunset Fades," Miss Lizzie Caylor, Indianapolis, and Mrs. Florence N. Fisk, Vevay. 2. Solo, "Shadow Song" (Dinorah), Miss Aurie V. Hedrick, Union City. 3. Annual Lecture: "Choice of Books," Rev. Myron W. Reed, Denver, Colorado. 4. Report of Committee on School Legislation. 5. Miscellaneous Business.

WEDNESDAY, Dec 31, 9 A. M.—1. Duet, "Sing Welcome to the Swallows," Miss Aurie V. Hedrick, Union City, and Mrs. Florence N. Fisk, Vevay. 2. "Froebel's Education of Man," Miss N. Cropsey, Indianapolis. Leaders in the Discussion: Miss Adelaide Baylor, Wabash, Miss Hattie Gary, Rising Sun. 3. General Discussion. Recess. 5. Solo (selected), Geo. W. Benton, Indianapolis. 6. Symposium: "The Distribution of School Revenues." Leaders in

the Discussion: J. W. Denney, R. A. Ogg, E. G. Machan, J. N. Study, H. M. La Follette, L. H. Jones. 7. General Discussion. 8. Reports of Committees. 9. Miscellaneous Business.

Papers limited to 30 minutes, leaders in discussion to 10 minutes; all other speeches limited to 5 minutes. Teachers are requested to come prepared to discuss some of the subjects presented in the various programs.

All members of the Association who have paid their annual dues will be admitted to the evening lecture *free*.

RAILROAD RATES.—Reduced rates will be given to members of the Association on the following terms: (1) Each member must purchase a full fare ticket to Indianapolis. (2) Each member must obtain of the *same agent*, a certificate stating that he paid full fare going. *Members must have these certificates, or pay full fare both ways.* Certificates stamped by the *home agent*, and signed by N. Yoke, Railroad Secretary, at Indianapolis, will secure return tickets upon payment of one-third fare. Tickets good from December 26 to January 2, 1891.

Members should inquire of their agent, at least one week *before* the meeting, as to whether he has on hand the certificates that will secure reduced rates. No refunding of fare can be expected because of failure of the parties to obtain certificates.

In case the agent can not sell a through ticket to Indianapolis, the member will purchase to the nearest point where such ticket can be obtained, and there ~~repurchase~~ to Indianapolis, obtaining certificates from *both agents* of whom tickets were purchased.

NELSON YOKE, *R. R. Sec'y.*

HEADQUARTERS.—Headquarters will be at the Grand Hotel. Rates \$2.00 a day, for one day or more, to members of the Association on presentation of receipt showing payment of annual dues.

D. W. THOMAS, *Chairman Ex. Com.*

W. W. PARSONS, *Pres.*

COLLEGIATE DEPARTMENT.

MONDAY, 2 P. M.—1. Reports and Routine Business. 2. "The Ethical Value of the Study of the Sciences," Prof. Julia W. Snow, Coate's College. 3. "Love the Basis of School Government," Pres. E. G. Paine, Hartsville University. 4. "A Much Needed Reform in Our College Courses," Professor Henry S. Kritz, Wabash College.

Evening, 7:30 o'clock.—1. "History in the Schools of Indiana," Prof. E. W. Kemp, State Normal School. 2. Annual Address by the President: "College Mathematics," Prof. C. A. Waldo, Rose Polytechnic Institute.

TUESDAY, 2 P. M.—1. "Physiology in College Courses," Prof. O. P. Jenkins, De Pauw University. 2. "The Training to be Expected from Technical Courses," Prof. Albert P. Carman, Purdue University. 3. "Qualifications for the Interpretation of Poetry," Prof. C. H. Hall, Franklin College. 4. Reports of Committees and Election of Officers.

HIGH SCHOOL DEPARTMENT.

TUESDAY, 2 P. M.—1. "What is a High School, and What Must It Do by Reason of Its Essential Nature?" George C. Hubbard, Prin. H. S., Madison.

Discussion opened by A. W. Moore, Prin. H. S., Marion. 2. "Shall High Schools have Half-Day Sessions?" Z. B. Leonard, Prin. H. S., Elkhart. General Discussion.

WEDNESDAY, 2 P. M.—1. "Whom Shall the High School Graduate?" Supt. P. V. Voris, Hagerstown. Discussion opened by Mrs. E. Mowrer, Prin. H. S., Warsaw. 2. "English in the High School," Edward H. Griggs, Inst. in Eng., Indiana University. General Discussion. 3. Miscellaneous Business.

It is hoped that every one interested in these subjects will take part in the discussions.

J. W. CARR, Pres.

W. E. HENRY, *Chairman Ex. Com.*

VILLAGE AND COUNTRY SCHOOL DEPARTMENT.

TUESDAY, 2 P. M.—1. President's Address: G. L. Harding, Middlebury. 2. "Elementary Drawing in the Common Schools," Miss A. E. Hill, Drawing Teacher, South Bend. Discussion by Miss Jennie Langley, Primary School, Elkhart; Geo. W. Deland, Supt. Schools, Vermillion County. 3. "Individual Economy of the Teacher," N. C. Johnson, Supt. Schools, Cambridge City. Discussion by W. A. Bell and W. W. Parsons. 4. "Value of Psychology to the District Teacher," M. B. Thomas, Supt. Schools, Pike Co. Discussion by J. H. Henry, Morgan Co.; W. H. Chilson, Clay Co. 5. Appointing Committees. Miscellaneous Business.

WEDNESDAY, 2 P. M.—1. "Elementary Science in the Common Schools," P. S. Baker, chair of Chemistry, De Pauw University. Discussion by Louis J. Rettger, South Bend; Robert W. Spear, Evansville; Willis S. Ellis, Madison Co. 2. "What Instruction Shall be Given in Grammar?" Mrs. Marietta H. Dunn, New Cumberland. Discussion by Miss Emma Butler, Warsaw; John W. Cravens, Monroe Co.; T. A. Brink, Butler. 3. Reports of Committees. Miscellaneous Business.

G. L. HARDING, Pres.

E. J. MCALPINE, *Chairman Ex. Com.*

TOWNSHIP, TOWN, AND CITY TRUSTEES' DEPARTMENT.

TUESDAY, 2.00 P. M.—1. "The Columbian Exposition—Shall Indiana be Represented?" James H. Smart, Pres. Purdue University. General Discussion. 2. Miscellaneous Business.

PERSONAL.

J. S. Goshorn is principal at Clay City.

H. S. Gilhams has control at Wolcottville.

J. M. Lilley holds the reins at Knightsville.

C. M. Leib is principal of the Lima schools.

T. N. James is principal of the Brazil high-school.

J. V. Zartman is Supt. of the schools at Worthington.

Jesse W. Riddle is Supt. of the schools at Leavenworth.

J. W. Short still remains at the head of the Liberty schools.

M. S. Wilkinson, ex-Co. Supt., is principal at Centre Point.

I. I. Cammack, a Hoosier, is principal of the Lathrop school, Kansas City.

A. J. Johnson remains in charge at La Grange, with Paul M. Miller principal of the high-school.

Mrs. Eudora L. Hailman of La Porte was one of the instructors at the Morgan County Association November 29.

F. D. Tharp, formerly of Indiana, is and has been for several years principal of school building in Kansas City.

Perry D. Creager resigned the superintendency of the Kendallville schools, and is attending a law school at Chicago.

S. W. Phillips, for five years principal of the Salem high-school, is now joint principal of the Eikosi Academy at Salem.

Will. Rawles, a State University graduate, late of Vincennes high-school, is now principal of the high-school at Sedalia, Mo.

W. H. Rucker continues to superintend at Lawrenceburg, and his annual report shows the schools in good running condition.

J. H. Smart, Pres. of Purdue University, was President of the National Agricultural Association which recently met in Champaign, Ill.

E. F. Sutherland, ex-principal of the Mitchell Normal School, is now territorial manager of the American Manakin Association of Chicago.

Miss Stel'a Robertson, a student of the State Normal in '84, '85 and '87, and formerly a teacher in Shelbyville, Ind., is now a teacher of Sixth Grade in one of the largest school-buildings in Chicago.

George P. Brown, editor of *The Public School Journal*, recently returned to Indianapolis and addressed the teachers. It was an excellent address and was highly appreciated. Having once superintended the city schools his visit was thoroughly enjoyed by himself and by his many friends.

Harvey D. Vories has been elected Supt. of Public Instruction, and will take the office next March. The Journal in referring to Mr. Vories's candidacy and nomination has already spoken of his scholarship, experience, energy, and general fitness for the office to which he is now elected. He will make an active, energetic officer, and will devote all his energies to the uplifting of the schools. In all this work he will have the hearty support of the School Journal.

SCHOOL TEACHERS IN POLITICS.—The following named persons were elected to office at the late election:

H. D. Vories, Supt. of Franklin county, was elected State Superintendent.

A. M. Sweeney, late Supt. of Dubois Co., was elected Supreme Ct. Reporter.

A. N. Higgins, principal of the Waynetown schools, was elected Representative from Montgomery county.

D. H. Ellison, late Supt. of Lawrence county, comes to the next legislature as Senator.

G. A. Osborn, ex-Supt. of Grant county, but at present principal of a ward school in Marion, is elected Recorder of his county, but does not take his office till November, '91.

J. W. Cravens, Supt. of Monroe Co., is elected to the office of County Clerk.

This is a good list and certainly a creditable one.

BOOK TABLE.

HARPER'S PUBLICATIONS, all of them,—The Monthly, The Weekly, The Bazar, and Young People, are all first-class in their departments and make excellent Christmas presents.

THE ARENA, published in Boston, is coming to the front as a magazine of sterling merits. The live issues of the day, political, social, religious, are discussed by the best thinkers of the land.

SILVER, BURDETT & CO., BOSTON, have ready the second edition (revised and improved) of "Our Own Country", Book III. of The World and Its People. This book is Vol. 7 of *The Young Folks' Library*, a popular series edited by Larkin Dunton, LL. D., Head Master of Boston Normal School.

MRS. HENRY WARD BEECHER'S "Reminiscences" of her late husband, which she is now writing, has been purchased by *The Ladies' Home Journal* of Philadelphia, and the articles will shortly begin in that periodical. The series will have for its title, "Mr. Beecher as I Knew Him," and will cover the entire period of his fifty-seven years of married life.

CHAS. SCRIBNER'S SONS, of New York, recently published a book entitled, "The United States—Its History and Constitution," by Alexander Johnston. The book originally appeared, nearly in its present form, in the *Encyclopedia Britannica*. It is not therefore intended for children, but is a profound study of the growth of the nation and its constitution. It is an excellent book to read in connection with any common school history.

HARPER'S SIXTH READER, which completes one of the best series of Readers yet published, is at hand. It is a fit closing. The editor is James Baldwin, Ph. D., for many years Supt. of the Huntington schools. Mr. Baldwin has done Indiana credit in many literary works. The selections in this book are of a high order and must open the way to the study of English Literature, if well taught. The variety is all that can be desired.

Harper's Readers are now published by the American Book Company.

PORTER & COATES, of Philadelphia, have on their list three excellent books for boys and girls, all under the head, "Child's History of Rome." They are entitled respectively, "Seven Kings of the Seven Hills," "Heroes of the Seven Hills," and "Conquests of the Seven Hills." These books are well written and calculated to inspire an interest that will lead to further historic research. The books are well bound and cheap—only 40 cts. a volume. The same house publishes a volume of Webster's Speeches (over 500 pp.), same binding and price as the above named histories. Ed. R. Smith, Chicago, is western Agt.

THE INTERNATIONAL EDUCATIONAL SERIES, edited by Wm. T. Harris and published by D. Appleton & Co., has reached Vol. XV. This is on "School Supervision," by J. L. Pickard. The author, who was for many years Supt. of the Chicago schools, is regarded as one of the ablest educational men in the United States, and his experience and opinions are valuable. The book gives the history of supervision and its character, and then discusses state, county,

and city supervision, and later treats of the various phases of the work, such as examinations and promotions, the superintendent's relation to teachers, pupils, patrons, school board, etc., etc. This book is intended especially for superintendents and will certainly be helpful to them, and it is not lacking in interest to teachers as well, and the teacher's work is discussed from the superintendent's standpoint.

A LIFE OF DOROTHEA LYNDE DIX, published by Houghton, Mifflin & Co., Boston, and written by Frances Tiffany, has just been issued. This book is a record of the life of a woman whose years extended through the greater part of a century, but they were years devoted entirely to the service of others. Miss Dix was born in 1802 and died in 1887. She was the first person in our country to turn her own and public attention to the wants and necessities of such unhappy persons as had been deprived of their reason. By her untiring efforts she completely revolutionized the care and management of the insane, not only in the United States but in Canada and Scotland, besides exerting a wide influence in many European countries. Her efforts, although benefiting the insane as a class, were particularly blest to the pauper insane, who up to the period of Miss Dix's efforts, had been confined in jails and alms-houses.

This is the first complete history of Miss Dix that has been written. She was very averse to giving to the public any facts that might be woven into a history of herself, saying that nothing would give her greater pain and annoyance than to see in print a record of her life,—and that it would be time enough for this when she was gone. This will account largely for the imperfect understanding so many persons have concerning her. During the war, Miss Dix did a wonderful work in the care of sick and wounded soldiers. After the close of the war she raised money sufficient to erect a monument to the soldiers buried at Hampton, Va.

BUSINESS NOTICES.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 70 Dearborn street, Chicago. We can assure all who write of confidential and honorable treatment.

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COLUMBUS NORMAL SCHOOL AND BUSINESS INSTITUTE opens its twenty-ninth Term January 20, 1891; thirtieth Term, March 31; thirty-first Term, June 9. Students can enter at any time and study any branch. Beautiful location; Good library; Superior instruction. We expect to make the Normal so good, practical, thorough, progressive and scientific that it will be accepted by the masses. On arriving take the street-car and come direct to the door of the Normal. Intelligent young persons are always welcome. For any information write to the principal, J. E. Polley, Columbus, Bartholomew County, Indiana. Catalogue and Normal Journal mailed free.

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LIGHT HEARTS AND PLENTY MONEY.—*Mr. Editor:* I have just completed my week's work with my Plating Machine and have \$42 profit as a reward. I am charmed with the business; the work is easy and profits large. I bought my Plater from W. H. Griffith & Co., Zionsville, Ohio, for \$3, and I feel confident if people only knew how cheaply they could get a Plater and how much money they could make with it, we would see many happy homes, "where penury now exists." It is surprising the amount of tableware and jewelry people want plated, and if persons now idle would send to the above address and get a circular, and go to work, they would soon have light hearts and plenty money.

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THE NATIONAL LEAGUE OF STATE TEACHERS BUREAUS offers, at no additional expense, the advantages of a registration in as many State Bureaus of the "League" as states in which a teacher is willing to accept a position. Good teachers are wanted for a large number of desirable positions in public and private schools and college work. Address Indiana League Teachers' Bureau, Terre Haute, Indiana. Geo. W. Thompson, manager. See advertisement on another page. I-11

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To the School Officers of Indiana :

The several Complete Series of Readers, Geographies, and Arithmetics published by this Company were adopted on July 10th, 1889, by the State Board of Education, for exclusive use in the common schools of Indiana for the next five years. This action was taken under the law of March 2d, 1889. The best evidence of the merits and value of these books is afforded by the resolutions of the Board of Education, taken from the official record. They are as follows:

WHEREAS, The text books in geography submitted by the Indiana School Book Company, consisting of an elementary geography and a complete geography, are in the judgment of this Board of School Book Commissioners, fully equal in size and quality as to material, matter, style of binding and mechanical execution, to the Eclectic Series of geographies named in section 1 of an act entitled "An act to create a Board of Commissioners for the purpose of securing for use in the common schools of the State of Indiana, a series of text-books, defining the duties of certain officers therein named with reference thereto, making appropriations therefor, defining certain felonies and misdemeanors, providing penalties for violation of the provisions of said act, repealing all laws in conflict therewith, and declaring an emergency."

Resolved, That the bid presented by that company be accepted, and that a contract be entered into with the said Indiana School Book Company to furnish these text-books in geography in accordance with the terms of the law, and the supplementary proposals contained in the note accompanying the bid, as follows:

"If this bid is accepted and the complete geography is adopted we propose to add thereto a new county map of Indiana, showing the railroads of the state, and special Indiana text equivalent to like matter in Eclectic Geography, No. 2. When the proposed new States are admitted, maps of each will be made and put into the geography. When the new Census is completed, revised tables of population, etc., will be inserted as speedily as practicable."

WHEREAS, The series of arithmetics submitted by the Indiana School Book Company and entitled "Elementary Arithmetic" and "Complete Arithmetic" of the "Indiana Educational Series," is, in the judgment of this Board, fully equal in size and quality as to matter, material, style of binding, and mechanical execution, to Ray's new series of arithmetics named as the standard in the law above mentioned;

Resolved, That the bid of said company be accepted and a contract be made with said company in accordance with the law aforesaid.

WHEREAS, In the opinion of this Commission the series of readers known as the Indiana Educational Series, and offered in the bid of the Indiana School Book Company, are equal in size and quality as to matter, material, style of binding, and mechanical execution, to the Appleton series named as a standard in the law above quoted;

Resolved, That the bid of the Indiana School Book Company be accepted, and the aforesaid series of readers be adopted and a contract be entered into with the said firm to furnish said books for the use of the schools of Indiana.

The above resolutions were adopted by a practically unanimous vote. The following members of the Board were present and voted:

Harvey M. LaFollette, Superintendent of Public Instruction.
L. H. Jones, Superintendent of Indianapolis Public Schools.
David S. Jordan, President of Indiana University.
W. W. Parsons, President of State Normal School.
J. W. Layne, Superintendent of Evansville Public Schools.
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CALENDAR: Fall Term will open Sept. 3; First Winter Term will open Nov. 12; Second Winter Term will open Jan. 20, 1890; Spring Term will open April 1, '90; Summer or Review Term will open June 10, '90.



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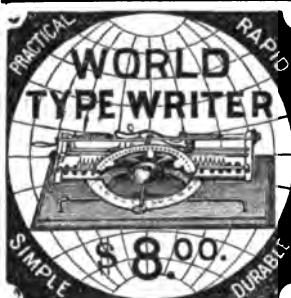
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Commencement Wednesday, June 17.

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APPARATUS.—An abundance of the best Apparatus is provided for the elucidation of every subject.

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During this term all of the Regular Classes are in session, and in addition to these, special review classes in all of the subjects taught in the Common and Graded Schools are organized. Students have the privilege of selecting just such work as they may want, as one tuition pays for all. Besides this those who attend have the advantage of being in charge of thoroughly trained instructors, of having the use of an abundance of apparatus, and of having access to one of the most complete libraries found at any Normal School.

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VALPARAISO, INDIANA.

CALENDAR.

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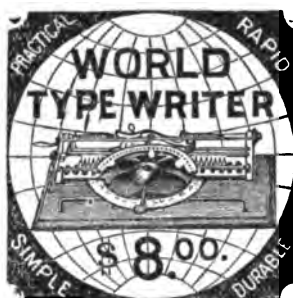
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WHEREAS, The text books in geography submitted by the Indiana School Book Company, consisting of an elementary geography and a complete geography, are in the judgment of this Board of School Book Commissioners, fully equal in size and quality as to material, matter, style of binding and mechanical execution, to the Eclecti: Series of geographies named in section 1 of an act entitled "An act to create a Board of Commissioners for the purpose of securing for use in the common schools of the State of Indiana, a series of text-books, defining the duties of certain officers therein named with reference thereto, making appropriations therefor, defining certain felonies and misdemeanors, providing penalties for violation of the provisions of said act, repealing all laws in conflict therewith, and declaring an emergency."

Resolved, That the bid presented by that company be accepted, and that a contract be entered into with the said Indiana School Book Company to furnish these text-books in geography in accordance with the terms of the law, and the supplementary proposals contained in the note accompanying the bid, as follows:

"If this bid is accepted and the complete geography is adopted we propose to add thereto a new county map of Indiana, showing the railroads of the state, and special Indiana text equivalent to like matter in Eclectic Geography, No. 2. When the proposed new States are admitted, maps of each will be made and put into the geography. When the new Census is completed, revised tables of population, etc., will be inserted as speedily as practicable."

WHEREAS, The series of arithmetics submitted by the Indiana School Book Company and entitled "Elementary Arithmetic" and "Complete Arithmetic" of the "Indiana Educational Series," is, in the judgment of this Board, fully equal in size and quality as to matter, material, style of binding, and mechanical execution, to Ray's new series of arithmetics named as the standard in the law above mentioned;

Resolved, That the bid of said company be accepted and a contract be made with said company in accordance with the law aforesaid.

WHEREAS, In the opinion of this Commission the series of readers known as the Indiana Educational Series, and offered in the bid of the Indiana School Book Company, are equal in size and quality as to matter, material, style of binding, and mechanical execution to the Appleton series named as a standard in the law above quoted:

Resolved, That the bid of the Indiana School Book Company be accepted, and the aforesaid series of readers be adopted and a contract be entered into with the said firm to furnish said books for the use of the schools of Indiana.

The above resolutions were adopted by a practically unanimous vote. The following members of the Board were present and voted:

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David S. Jordan, President of Indiana University.
W. W. Parsons, President of State Normal School.
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Resolved, That the bid presented by that company be accepted, and that a contract be entered into with the said Indiana School Book Company to furnish these text-books in geography in accordance with the terms of the law, and the supplementary proposals contained in the note accompanying the bid, as follows:

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WHEREAS, The series of arithmetics submitted by the Indiana School Book Company and entitled "Elementary Arithmetic" and "Complete Arithmetic" of the "Indiana Educational Series," is, in the judgment of this Board, fully equal in size and quality as to matter, material, style of binding, and mechanical execution, to Ray's new series of arithmetics named as the standard in the law above mentioned:

Resolved, That the bid of said company be accepted and a contract be made with said company in accordance with the law aforesaid.

WHEREAS, In the opinion of this Commission the series of readers known as the Indiana Educational Series, and offered in the bid of the Indiana School Book Company, are equal in size and quality as to matter, material, style of binding, and mechanical execution to the Appleton series named as a standard in the law above quoted:

Resolved, That the bid of the Indiana School Book Company be accepted, and the aforesaid series of readers be adopted and a contract be entered into with the said firm to furnish said books for the use of the schools of Indiana.

The above resolutions were adopted by a practically unanimous vote.

The following members of the Board were present and voted:

Harvey M. LaFollette, Superintendent of Public Instruction.
L. H. Jones, Superintendent of Indianapolis Public Schools.
David S. Jordan, President of Indiana University.
W. W. Parsons, President of State Normal School.
J. W. Layne, Superintendent of Evansville Public Schools.
W. H. Wiley, Superintendent of Terre Haute Public Schools.
Alvin P. Hovey, Governor of Indiana.

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[1866-1890.]

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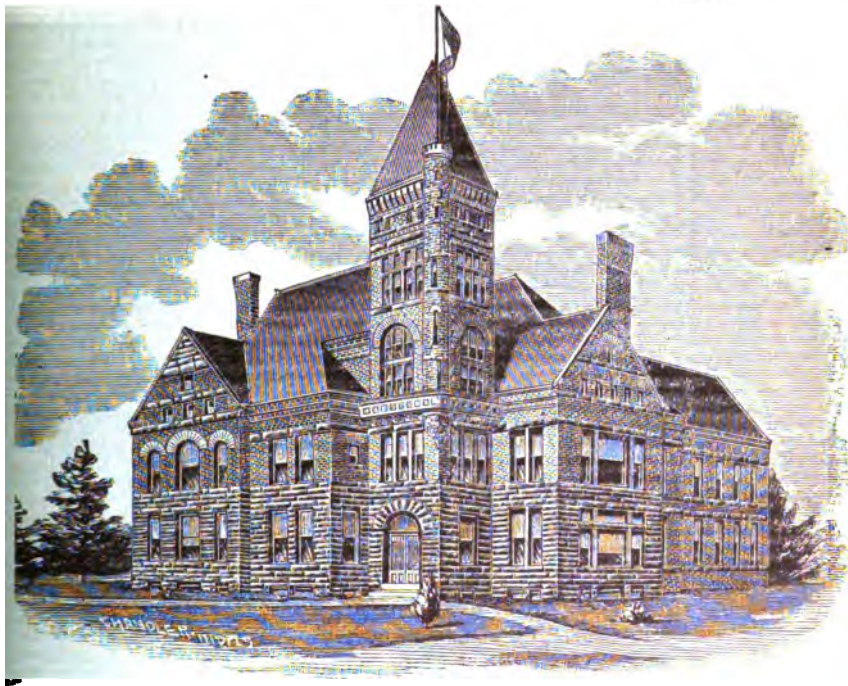
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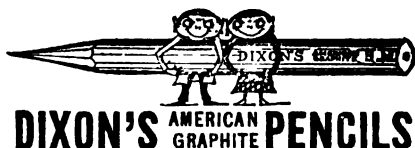
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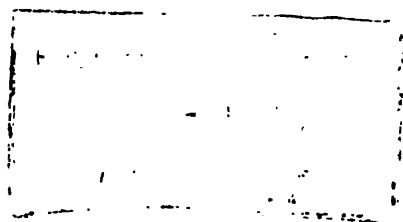
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